POLSKA AKADEMIA NAUK
INSTYTUT ZOOLOGII

ANNALES ZOOLOGICI

Tom 34 Warszawa, 8 XII 1978 Nr 9

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Fulgoroidea (Homoptera) from Viet-nam

[With 267 Text-figures]

Abstract. Among fulgoroid *Homoptera* from Viet-nam in the collection of the Institute of Zoology of the Polish Academy of Sciences, 106 species and subspecies belonging to 78 genera were found to be represented. Apart from a few widespread or oriental species, these showed an affinity with the faunas of eastern India and Malaya. Ten new genera, 29 new species and 7 new subspecies are erected and one change of status is proposed.

This report is concerned with some 750 examples of *Fulgoroidea* collected between 1959 and 1966 in the northern part of Viet-nam by B. PISARSKI and J. PRÓSZYŃSKI (B. P. & J. P.), K. GALEWSKI (K. G.), A. WARCHAŁOWSKI (A. W.) and R. BIELAWSKI and B. PISARSKI (R. B. & B. P.). This material was made available for study from the Institute of Zoology, Polish Academy of Sciences (P. A. N.), and was supplemented where appropriate by specimens from the accessions of the British Museum (Nat. Hist.). The writer's warmest thanks are tendered to Dr. Janusz NAST for the privilege of studying the collection.

The composition of the fulgoroid fauna of some of the peripheral areas of South-east Asia, such as Ceylon, India, Indonesia, Philippine Islands and Formosa, is comparatively well-known at generic level, but only fragmentarily at specific level, and uncertainty exists in various degrees about the identity of species that have been reported from areas remote from the type locality. Few *Fulgoroidea* have been described from Viet-namese material, and the task of establishing the affinity between Viet-namese specimens and broadly similar specimens named from other parts of South-east Asia is one that it has not been possible to complete satisfactorily through lack of material of the appropriate sex. It is evident that in Viet-nam there are representatives or close

allies of species in all peripheral countries, and that the fauna is most closely related to those of north-east India and Malaya.

The collection included over 230 examples of the rice pest *Nilaparvata lugens* (STÅL) and over 80 examples, mostly female, of species of *Toya*. Among the remaining species represented, it has been found necessary to recognise no less than 10 genera, 29 species and 7 subspecies as new.

Family *Tettigometridae* GERMAR

Genus *Egropa* MELICHAR

MELICHAR 1903: 82. Type species, *Egropa inusta* MELICHAR 1903: 82.

Egropa malayensis (DISTANT).

Hilda malayensis DISTANT 1908: 129 .

1 ♂, 1 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 8. VI. 1966; Thanh-ha province, Hoa Binh (R. B. & B. P.).

Family *Cixiidae* SPINOLA

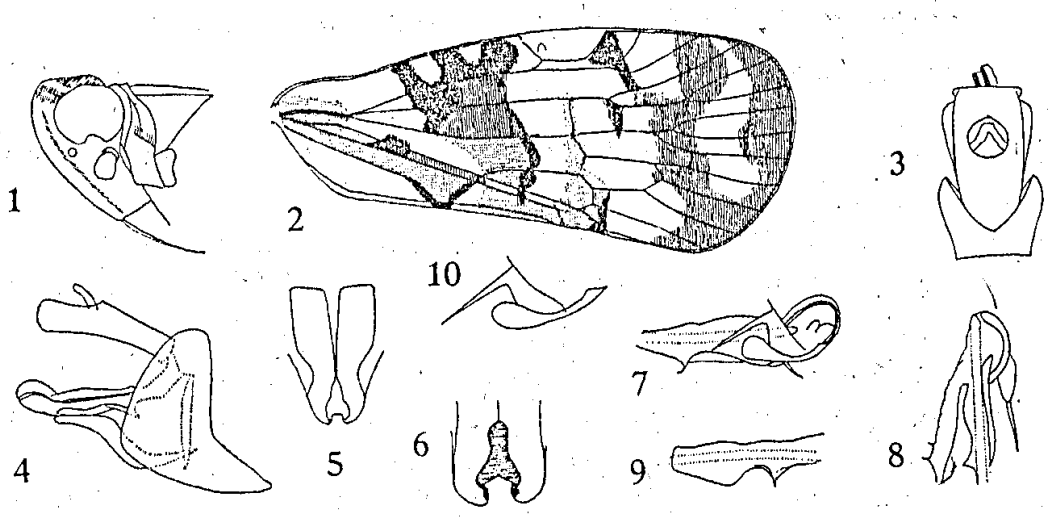
Genus *Andes* STÅL

STÅL 1866: 166. Type species, *Andes undulatus* STÅL 1870: 747.

Andes truncatus **sp. n.** (Figs. 1—10).

Vertex as long in middle as broad at base of middle line, in profile rounding almost smoothly into frons; frons longer than broad between edges of lateral carinae (about 3 : 1), wider at widest part than at level of upper margin of eyes (nearly 2.8 : 1). Eyes without a ridge below lower margin. Tegmina with apical margin broadly and evenly rounded, costal margin feebly sinuate in basal quarter; sutural margin very feebly sinuate distad of apex of clavus. Procoxae with outer apical angle not produced.

Dark reddish brown; lateral margins of frons and clypeus, genae and sides of head before eyes, lateral lobes of pronotum and tegulae, light yellowish brown; antennae, pleurites and legs pallid yellowish brown, pro-and mesotibiae a little darker. Tegmina milky hyaline, a suffusion overlying humeral angle of clavus, a band from basal cell Cu_2 in clavus, an arcuate band from claval suture at its middle to costa, widening in cells *M*, *R*, *Sc*, and *C*, dull yellow, here and there bordered fuscous, a short transverse line just distad of claval apex and a spot just distad of stigma, dark fuscous; a broad irregular transverse subapical fascia across membrane and a suffusion at apical margin, dilute fuscous. Wings very dilute fuscous.



Figs. 1–10. *Andes truncatus* sp. n. 1 — head and pronotum, left side; 2 — tegmen; 3 — anal segment and pygofer, dorsal view; 4 — male genitalia, right side; 5 — genital styles, posterior view; 6 — medioventral process of pygofer and base of genital styles, posterior view; 7 — aedeagus, left side; 8 — aedeagus, dorsal view; 9 — phallobase, right side; 10 — left lateral process of aedeagus, lateral view.

Anal segment of male moderately long, almost bilaterally symmetrical, nearly straight, apical margin transverse, apical angles produced and a little deflexed. Pygofer with dorsolateral angles not produced, lateral margins obtusely angulately convex, medioventral process broad and short, angulate apically. Aedeagus tubular, slightly produced ventrad on lower margin in basal third, a submembranous cylindrical lobe arising on right at apex, directed cephalad, with two minute teeth on its outer aspect distally; a long spinose process arising dorsally on left near apex, extending cephalad close against phallobase; a spinose process on left apically curving dorsad, then cephalad, ventrad and finally ventrocaudad; a slender spine on left side arising near apex directed ventrocephalad. Genital styles moderately long, in lateral view narrow and shallowly sinuate, in posteroventral view incurved from base to meet in middle line, then widening and parallel-sided in distal half, apical margin truncate, with inner and outer angles not produced.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.)

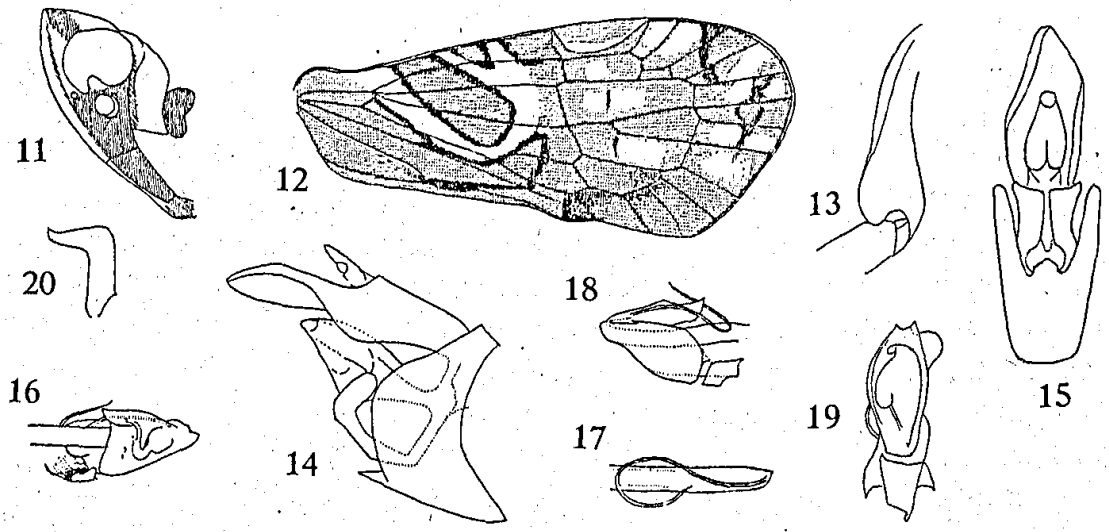
This species falls into the section of the genus characterized by an unmodified procoxa, and differs from all others in this group in the structural details of the male genitalia, among which the distally truncate anal segment and genital styles are the most conspicuous.

***Andes hemina* sp. n.** (Figs. 11–20).

Vertex longer than broad at base of middle line (2 : 1), in profile meeting lateral margins of frons angulately; frons longer than broad between edges of lateral carinae (4.8 : 1), wider at widest part than at level of upper margin of eyes (1.9 : 1). Eyes with a weak ridge below lower margin. Tegmina with

apical margin oblique, costal margin strongly sinuate in basal quarter; sutural margin strongly sinuate distad of apex of clavus. Procoxae with outer apical angle produced ventrad in a small but distinct lobe.

Fuscous; lateral margins of frons, sides of head above eyes, lateral lobes of pronotum except near head, procoxae on outer edge, profemora at middle and apex, protibiae at base, near middle and at apex, meso- and postfemora at apex, post-tibiae and tarsi except apically, and abdominal sternites at posterior margin, pallid stramineous or sordid white. Tegmina with corium dull yellow, membrane fuscous; three bands in costal cell, a looped band from the first of these obliquely across to claval suture, then recurved to cell *Sc*, a band across subapical cell Cu_{1a}, middle area of three subapical and six apical cells, and basal two-thirds of anterior claval vein (*PCu*), white, bordered with fuscous on corium; longitudinal veins (except *PCu* in part) concolorous, transverse veinlets and nodules on apical veins of R_S, M_{3+4} and Cu_{1a}, stramineous. Wings fuscous.



Figs. 11–20. *Andes hemina* sp. n. 11 – head and pronotum, left side; 12 – tegmen; 13 – procoxa, posterolateral view; 14 – male genitalia, right side; 15 – male genitalia, posteroventral view; 16 – aedeagus, left side; 17 – aedeagus, dorsal aspect, showing course of flagellum (semidiagrammatic); 18 – aedeagus, right side; 19 – aedeagus, ventral view; 20 – left genital style, posterolateral view.

Anal segment of male moderately long, asymmetrical, not decurved distally, lateral margins in side view sinuate, apical margin narrowly rounded, anal foramen at middle. Pygofer with dorsolateral angles not at all produced, mediodorsal process broadly subtriangular. Aedeagus moderately long, tubular in basal half, partly loosely enfolded distally by a thin broadly triangular pellicle ("cucullus" of MUIR 1925: 202) with a scroll-like extension ventrally below phallobase; a long slender process (virga) arising dorsally on left at apex, extending obliquely cephalad to cross middle line, then strongly curved to left and laterocaudad. Genital styles simple, in lateral view with upper and lower mar-

gins almost parallel, then abruptly bent dorsad through 90° slightly beyond middle and tapering to apex, which is narrowly rounded.

Pregenital (VIIth) sternite of female with a minute median process. Disc of ninth segment not hollowed and its margins not carinate.

Male: length, 3.8 mm.; tegmen, 5.0 mm. Female: length, 4.7 mm.; tegmen, 6.7 mm.

Holotype ♂, Malaya: Kuala Lumpur, IX. 1973 (L. A. MOUND) in BM (NH).

Paratypes, 1 ♀, Malaya: Kedah, near Jitra, catchment area, 7. IV. 1928 (H. M. PENDLEBURY); 1♀, Viet-nam: Cuo-phuong province, Ninh-Binh, 11. VI. 1966 (R. B. & B. P.).

In the shape of the head, this species appears to be nearest to *A. marmoratus* (UHL.) and *A. angulatus* MUIR, but it differs from both in coloration and in the shape of every element of the male genitalia. The ivory-white basal portion of the anterior claval vein is characteristic.

Genus ***Kirbyana*** DISTANT

DISTANT 1906: 262. Type species, *Kirbya pagana* MELICHAR 1903: 37.

Commolenda DISTANT 1911: 741. Type species, *Commolenda deusta* DISTANT 1911: 741, **syn. n.**

Commolenda was synonymised with *Ptoleria* STÅL by MUIR (1925: 100) but its type species is close to *Kirbyana pagana*. Members of this genus may be recognised by the relatively short frons, deeply impressed in at least its basal half, where the median carina is relatively weak or absent, by the tegminal venation between M_{3+4} and Cu_{1a} and by the percurrent dark brown stripe along the outer surface of the tibiae. Less obviously, the disc of the frons is characteristically speckled with small spots that are a little paler than the ground colour.

Key to species of *Kirbyana*

1. Anterior margin of vertex angulately excavate or incised at middle . . 2
—. Anterior margin of vertex transverse . . . . . *deusta* DISTANT
2. Longitudinal veins of tegmen with outdark granules . . . . . *javana* MUIR
—. Longitudinal veins of tegmen with at least some dark granules 3
3. An oblique dark stripe and a small dark spot in a hyaline area of tegmen overlying subapical transverse veinlet R-R_s. Mesonotal disc without a spot on each side near base of lateral carinae . . . . . *pratti* MUIR
—. Tegmina not so marked. Mesonotal disc with a small dark spot near base of each lateral carina . . . . . *pagana* MELICHAR

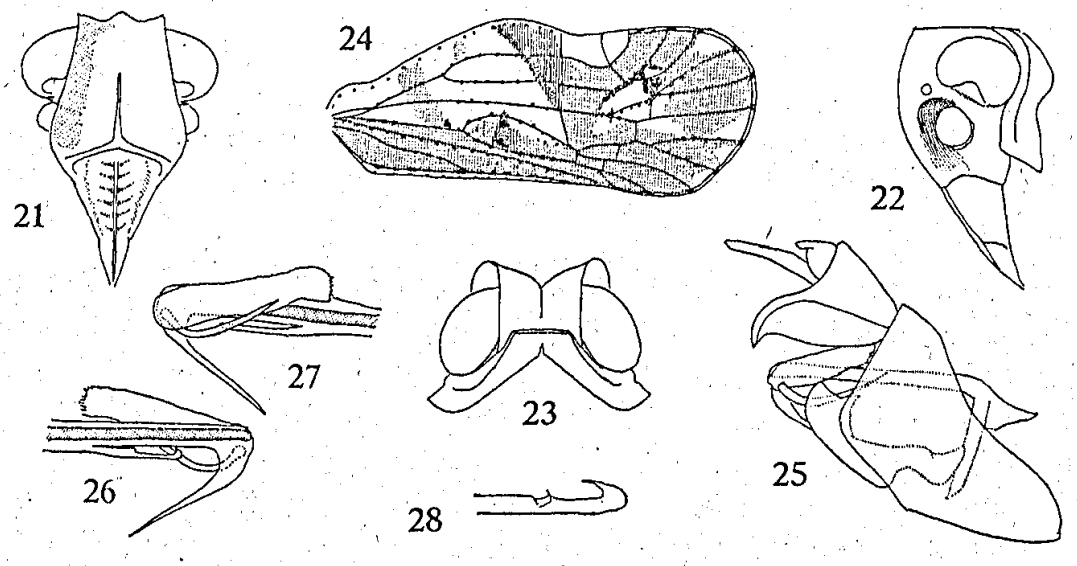
Kirbyana pratti MUIR.

MUIR 1913: 200.

***Kirbyana pratti thyas* subsp. n.** (Figs. 21–28).

Vertex wider at level of base of middle line than shortest length of disc (1.7 : 1), as wide at apex as at base, and longer at lateral margins than in middle (1.6 : 1). Frons as long in middle line as broad, wider at widest part than at base (about 1.5 : 1).

Pallid yellowish brown; a suffusion between pallid speckling on frons, some striate markings on clypeus, genae and sides of head (except for two pale spots) before eyes, lateral fields of pronotum and mesonotum and some marbling on mesonotal disc, tegulae, a small spot at base of procoxae, mesocoxae and postfemora, and marbling on abdominal terga, eight sternite of male and basal half of pygofer, darker yellowish brown or dilute fuscous; a stripe along



Figs. 21–28. *Kirbyana pratti thyas* subsp. n. 21 – head, anterior view; 22 – head and pronotum, left side; 23 – head and pronotum, dorsal view; 24 – tegmen; 25 – male genitalia, right side; 26 – aedeagus, left side; 27 – aedeagus, right side; 28 – ventral process of aedeagus, left posterolateral view.

exterior surface of all tibiae dark fuscous to piceous. Tegmina dilute yellowish brown, costal cell at base, a subquadrate area between *C* and Cu_{1a} in basal half of tegmen, stigma, an elongate subtriangular area extending across subapical transverse line in *R* and *M*, cell R_5 distally and apical cells posterior to M_2 subapically, milky hyaline; a diffuse oblique band just basad of stigma, four spots on Cu_1 in coriun, an oblique stripe in membrane lying along *So* near subapical transverse veinlets, a subquadrate spot overlying subapical transverse veinlet *R*–*M*, about five spots on posterior claval vein, granules on all veins in hyaline area of tegmen and spots at junction of apical veins with margin, dark fuscous. Wings hyaline, lightly powdered white.

Anal segment of male symmetrical, moderately long, with deep sides, in lateral view subequilaterally triangular, with ventral margin shallowly convex; apical margin shallowly excavate medially. Pygofer short dorsally, long ventrally, dorsolateral angles not produced, lateral margins obtusely rounding, medioventral process short, broadly triangular. Aedeagus relatively long, porrect caudad, dorsal margin straight, a narrow process arising on ventral margin at two-fifths from base, directed caudad, with a small triangular lobe, extending laterad, at its middle and curving abruptly to left distally and tapering to apex, which is acuminate; a long stout blade-like process arising ventrally at apex, directed cephalad along right side of aedeagus; a long spinose process arising ventrally at apex, directed ventrocephalad; a membranous flagellum arising on right at apex, extending cephalad above aedeagus, abruptly narrowing at middle and continuing to base of aedeagus as a delicate slender spine. Genital style moderately long, in side view strongly sinuate in basal third, widening distad and upcurved in apical third; dorsal margin concave, ventral margin broadly rounding into apical margin, apical process acute.

Male: length, 2.5 mm.; tegmen, 4.0 mm.

Holotype of subspecies. ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 5. VI. 1966 (R. B. & B. P.), in Inst. Zool P.A.N.

In the typical population, from Malaya, the ventral process extending caudad below the aedeagus is only weakly curved apically; the ventral process that arises apically and slopes ventrocephalad is shorter and stouter than in the Cuo-phuong population, and there is a slender relatively short spine arising apically on the left side of the aedeagus, directed cephalad, in the Malayan population that is entirely absent in *K. pratti thyas*.

Genus ***Myndus*** STÅL

STÅL 1862: 307. Type species, *Flata musiva* GERMAR 1825: pl. 21.

Subgenus ***Colvanalia*** MUIR

MUIR 1925: 162. Type species, *Brixia concinnula* WALKER 1870: 110.

Myndus (Colvanalia) sp.

1 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.).

This species differs in tegminal coloration from any of the species discussed by MUIR (1923: 161–169), but the status of the population from which it comes must remain uncertain until males can be examined.

Genus ***Betacixius*** MATSUMURA

MATSUMURA 1914: 412. Type species, *Betacixius ocellatus* MATSUMURA 1914: 412.

Betacixius pallidior JACOBI

JACOBI 1944: 15.

1 ♀, Viet-nam: Tam Dao, 70 km N of Hanoi, 24–26. IV. 1962 (A. W.).

Genus *Oliarus* Stål

Stål 1862: 306. Type species, *Cixius walkeri* Stål 1859: 272.

Oliarus annandalei Distant

Distant 1911: 736.

2 ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 5. and 7. VI. 1966 (R. B. & B. P.).

The Malayan population to which Muir applied the name *cocosivora* (1929: 409) appears to be only a subspecies of *annandalei*, distinguished by the dark apical portion of the wing, and to reflect this the name *Oliarus annandalei cocosivora* Muir, **stat. n.** is here proposed.

Oliarus sp.

1 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.).

In this species, the vertex is longer in the middle than broad at the base of the middle line (about 1.15 : 1) and wider at this level than at apex (about 1.2 : 1). The absence of a median fossette at the apex of the vertex and the form of the female genitalia indicate an affinity with the *O. walkeri* group, but the proportions of the head differ from those in *O. walkeri* itself.

Oliarus sp.

1 ♀, Viet-nam: Nghe An district, Phu Quy, 16. VI. 1959 (B. P. & J. P.).

The vertex, measured as in the preceding species, is longer than broad (1.4 : 1) and wider at base than at apex (1.1 : 1). This species belongs to the *O. walkeri* group, and the proportions of the vertex are close to those in *O. walkeri*.

Genus *Borysthenes* Stål

Stål 1866: 165. Type species, *Cixius finitus* Walker 1857: 149.

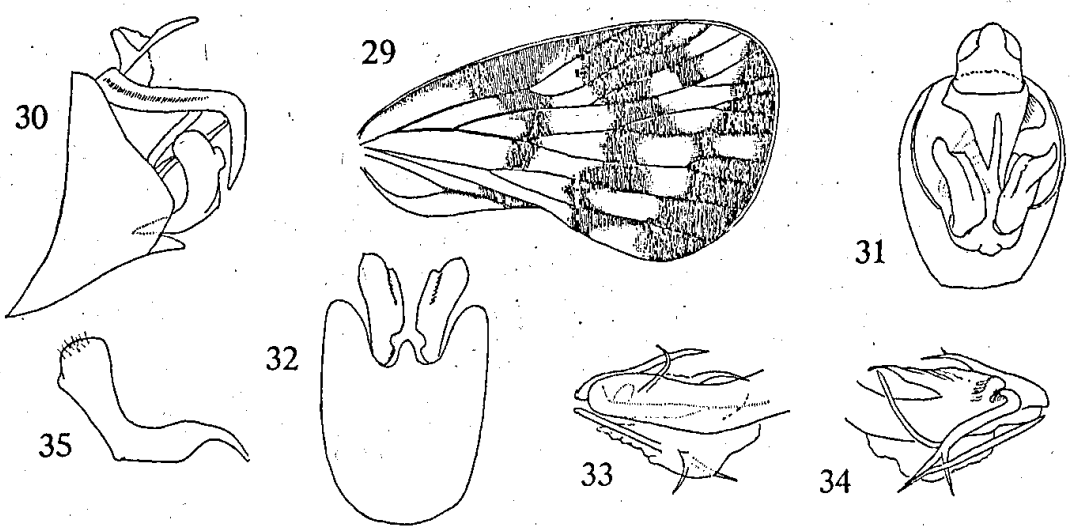
Borysthenes nicanor **sp. n.** (Figs. 29–35).

Vertex with lateral margins longer than middle line (3 : 1); its width between basal angles greater than at anterior margin (1.5 : 1); disc obscurely medially carinate, depressed. Greatest width of tegmen (from apex of stigma to anal angle) greater than width at level of union of claval veins (2 : 1); vein *R* in tegmen united basally in a common stem with *M*.

Light yellowish brown; lateral lobes of pronotum and pleurites, pallid stramineous; legs and apical segment of rostrum, dilute fuscous. Tegmina sordid milky-hyaline, with dark fuscous markings as illustrated; costal margin distad of middle and *Sc* distally, orange brown.

Anal segment of male deflexed through 90° distad of anal foramen, medially cleft distally, lateroapical lobe of left side not so strongly produced as that

on right. Pygofer with lateral margins oblique, obtusely angulate in lower half, medioventral process about as long as broad at base, rounded-triangular. Aedeagus moderately long, a membranous lobe dorsally near apex, extending cephalad and tapering into a small spine apically (Fig. 34), a stout spinose



Figs. 29–35. *Borysthenes nicanor* sp. n. 29 – tegmen; 30 – male genitalia, left side; 31 – male genitalia, posterior and slightly lateral view; 32 – pygofer and genital styles, ventral view; 33 – aedeagus, right side; 34 – aedeagus, left side; 35 – genital style, lateral view.

process arising dorsally at apex, directed cephalad above aedeagus, a smaller slender process arising dorsally on right, directed dorsocephalad then curving laterad, a stout rod-like process arising ventrally at apex, directed ventrocephalad and acuminate at apex, a stout spinose process arising subapically on left, directed ventrocephalad, weakly bent at its middle and giving off a short acuminate limb, directed ventrad, at two-thirds from its base, a rather long spinose process arising on left distally, extending cephalad and lying closely against left side of phallobase, then curving dorsocephalad. Genital styles stout, in lateral view curved dorsad distally, with upper and lower margins subparallel and apex broadly rounded, sparsely setose; a longitudinal sulcus near inner margin of style.

Male: length, 4.0 mm.; tegmen, 6.0 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.) in Inst. Zool. P. A. N.

The basal fusion of *R* and *M* in the tegmen shows this species to be a member of the *finitus* group. It differs from *finitus* (WALK.) in tegminal pattern, there being in *finitus* an uninterrupted transverse fuscous band from the sutural margin near the claval apex to the costal margin; from *diversa* (DISTANT) in both tegminal markings and male genitalic structure (in *diversa* the medioventral process of the pygofer is relatively long and is bicuspidate apically); and from *deflexus* FENNAH in tegminal pattern, details of aedeagal armature and shape of the genital styles.

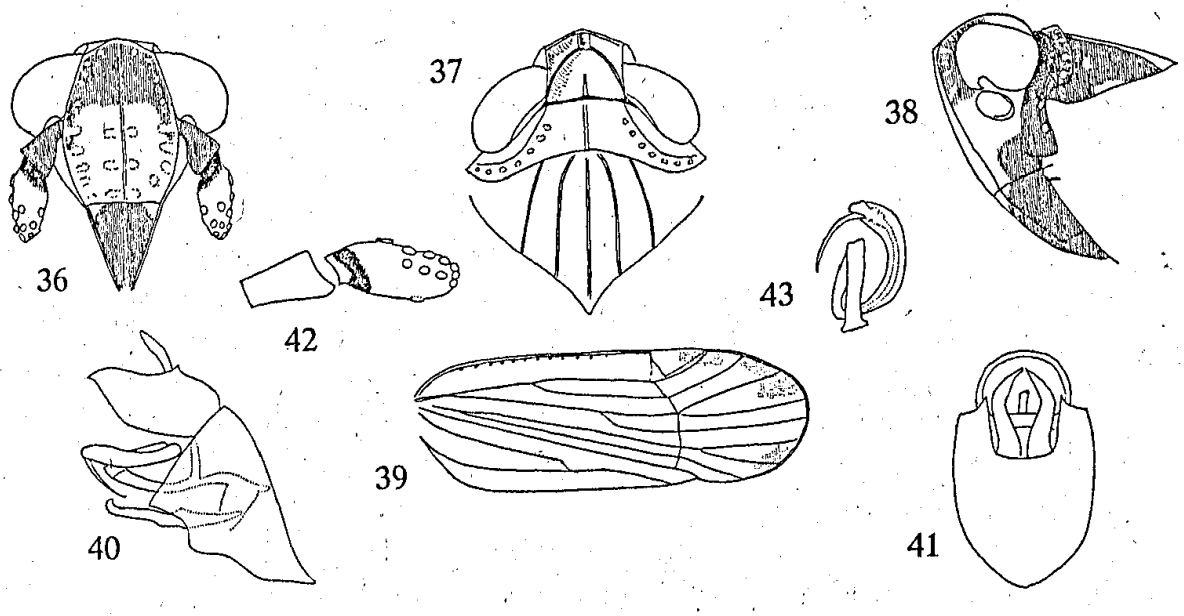
Family *Delphacidae* Leach

Genus *Eodelphax* Kirkaldy

Kirkaldy 1901: 39. Type species, *Eodelphax serendiba* Kirkaldy 1901: 40.

***Eodelphax personatus* sp. n.** (Figs. 36–43).

Vertex wider at level of base of middle line than long in middle, and as wide at base at apex; sublateral carinae arising from lateral margins near base and uniting with a small quadrate median fossette apically. Frons longer in middle line than broad (1.4 : 1), wider at widest part than at base (1.6 : 1) and as wide at apex as at base. Antennae with basal segment moderately compressed, longer than broad at apex (1.7 : 1), strongly widening distad, second segment longer than first (nearly 1.5 : 1), ovate, rather compressed. Ocelli present, non-functional. Tegminal venation a little irregular; Cu_1 apparently forking basad of $Sc+R$ fork, M simple to nodal line of forked near it.



Figs. 36–43. *Eodelphax personatus* sp. n. 356 — head, anterior view; 37 — head and thorax dorsal view; 38 — head, left side; 39 — tegmen; 40 — male genitalia, right side; 41 — male genitalia, posterior view; 42 — antenna, with segments detached; 43 — aedeagus, ventral view.

Fuscous; distal two-thirds of frons, lateral margins of clypeus at base, rostrum, legs except for a suffusion along femora, two transverse bands on tibiae, and base of first metatarsal segment, stramineous. Tegmina greyish-hyaline, granules on veins and in cells, costal margin narrowly, stigma and a suffusion in apical cells of R and M, fuscous. Wings dilute fuscous, with darker veins.

Anal segment of male relatively large, broadly rounded apically, in side view with ventral margin convex. Pygofer short dorsally, long ventrally, lateral

margins in side view straight for most of their length, abruptly rectangulate at level of genital styles, ventral margin transverse, no medioventral process present; diaphragm relatively narrow, transverse, with upper and lower margins parallel. Aedeagus with phallobase moderately long, tubular; flagellum directed cephalad then recurving to right and finally to left and cephalad, and terminating in a long spinose process. Genital styles moderately long, shallowly sinuate, widest at base, directed mesodorsad in distal third and tapering to acuminate apex.

Male: length, 3.0 mm.; tegmen, 3.3 mm

Holotype ♂. Viet-nam: Cuo-phuong province, Ninh Binh, 5. VI. 1966 (R. B. & B. P.) in Zool. Inst. P. A. N.

The writer has already reported this specimen as a female (FENNAH 1975: 81), but removal of an apically-inflected tegmen and the underlying wing revealed its true sex. This species differs from *E. serendiba* in the coloration of the tegmina, and in this respect is like *Punana philippina* MUIR (1916: 371). It differs from the latter, however, in the shape of the pygofer and in bodily size.

Genus *Melanesia* KIRKALDY

KIRKALDY 1907: 128. Type species, *Melanesia pacifica* KIRKALDY 1907: 129.

Melanesia sp.

1 mutilated specimen, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B & B. P.).

Genus *Purohita* DISTANT

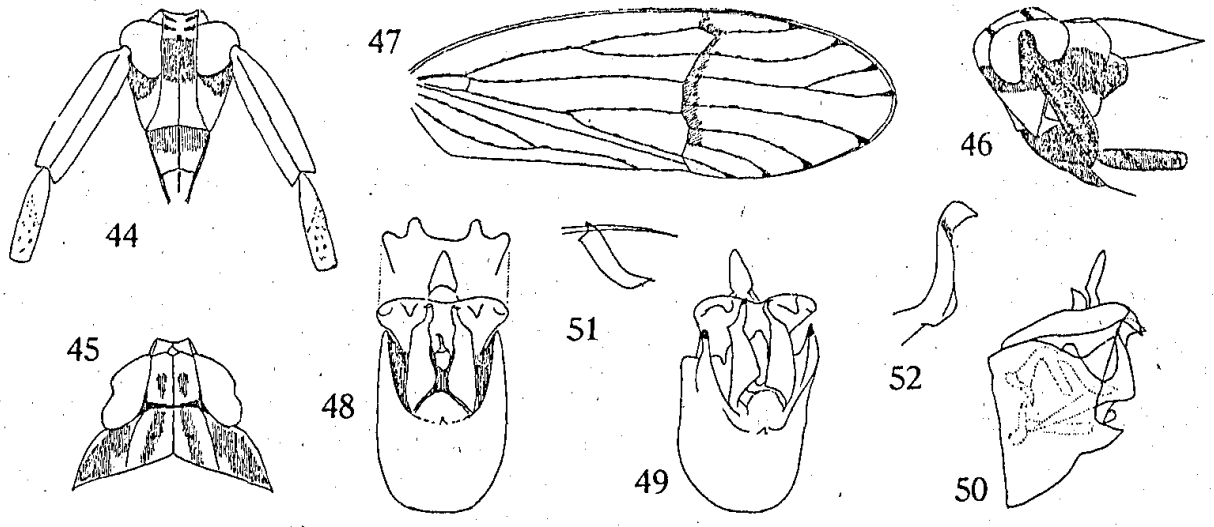
DISTANT 1906: 470. Type species, *Purohita cervina* DISTANT 1906: 470.

***Purohita theognis* sp. n.** (Figs. 44–52).

Vertex broader at base of middle line than long submedially (1.2 : 1); basal segment of antennae longer than broad (nearly 4 : 1) and longer than second segment (1.3 : 1).

Greenish-stramineous; frons, genae and postclypeus, each in basal half, a pair of spots on vertex, a pair of suffusions submedially on pronotum and at anterior margin of mesonotum, lateral fields of pronotum and mesonotum, tegulae and much of abdomen dorsally, orange; antennae, longitudinal stripes on profemora and mesofemora, ventral surface of pygofer, anal segment and genital styles, fuscous; a spot at base of median carina of frons, a transverse fascia, interrupted medially, just basad of it, a transverse fascia at apex of vertex and two spots on sides of head above eyes and on margin of second antennal segment near base, black. Tegmina milky-hyaline, veins, except

costa, with irregular piceous dashes, widening into a suffusion over veins at apical margin, a well-defined suffusion adjoining nodal transverse line on distal side between *C* and Cu_{1b}, fuscous. Wings milky-hyaline, veins dilute fuscous.



Figs. 44–52. *Purohita theognis* sp. n. 44 – head, anterior view; 45 – head and pronotum, dorsal view; 46 – head, left side; 47 – tegmen; 48 – male genitalia, posterior view, with apical margin of anal segment in dorsal view shown detached above; 49 – male genitalia, posterolateral view; 50 – male genitalia, lateral view; 51 – aedeagus, left side; 52 – left genital style, left side.

Anal segment of male long and broad, widening distad, apical angles widely separated, narrowly produced ventrad; lateral margins a little produced laterad distally, so that in dorsal view four short subequal lobes are visible. Pygofer with dorsolateral angles acute, strongly produced dorsocaudad; medioventral process acute. Aedeagus relatively short, parallel-sided, deflexed ventrocaudad from base and abruptly tapering at apex; a long spinose process, directed caudad, arising at base. Genital styles moderately long, tapering distad, twisted in apical quarter to point caudad apically.

Male: length, 3.7. mm; tegmen, 4.8 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

This species is distinguishable from others by the presence of a transverse dark band along the nodal line of the tegmen. It differs from *P. arundinacea* DISTANT and *P. nigripes* MUIR in the weaker convergence distad of the lateral margins of the vertex, and from the latter also in the coloration of the tegminal veins, and from *P. cervina* DISTANT in the shape of the first antennal segment and the colour of the tegmen distad of the claval apex.

Genus ***Tropidocephala*** STÅL

STÅL 1853: 266. Type species, *Tropidocephala flaviceps* STÅL 1855: 93.

Tropidocephala luteola DISTANT.

DISTANT 1912: 193.

1 ♂, Viet-nam: Lao Kay, 28. V. 1960 (K. G.).

Tropidocephala atrata (DISTANT).

Smara atrata DISTANT 1906: 497.

1 ♂ (mutilated), Viet-nam: Cuo-phuong province, Ninh Binh, 5. VI. 1966 (R. B & B. P.).

Tropidocephala sp.

1 ♀, Viet-nam: Bao Ha, S. Fan-si-Pan, 4–11. IV. 1962 (A. W.).

Genus *Nilaparvata* DISTANT

DISTANT 1906: 473. Type species, *Delphax lugens* STÅL 1854: 246.

Nilaparvata lugens (STÅL).

Delphax lugens STÅL 1854: 246.
Nilaparvata greeni DISTANT 1906: 473.

A long series of males and females, Viet-nam: Co-loa, 20 km NE of Hanoi, 9. VI. 1966 (R. B. & B. P.); Hanoi, 3. V. 1966 (R. B. & B. P.)

Nilaparvata muiri CHINA.

CHINA 1925: 480.

1 ♂, Viet-nam: Lao Kay, 28. V. 1960 (K. G.).

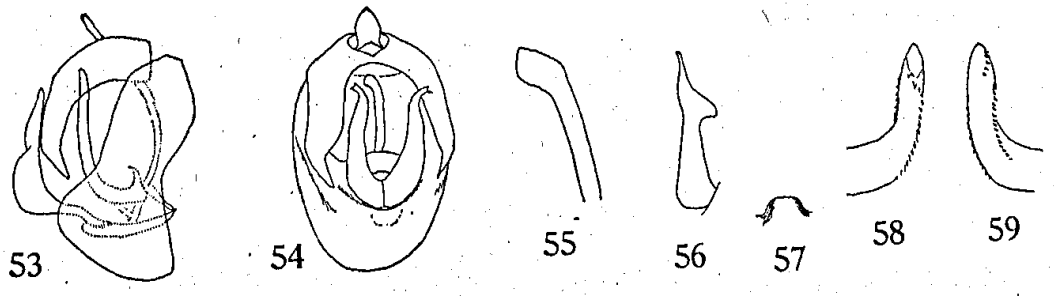
Genus *Stenocranus* FIEBER

FIEBER 1866: 519. Type species, *Fulgora minuta* FABRICIUS 1767: 262.

Stenocranus pacificus KIRKALDY (Figs. 53–55).

KIRKALDY 1907: 139.

2 ♂, 1 ♀, Viet-nam: Thanh-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.).



Figs. 53–59. 53–55: *Stenocranus pacificus* KIRKALDY. 53 – male genitalia, right side; 54 – male genitalia, slightly posterolateral view; 55 – distal portion of aedeagus; 56, 57: *Cemus sauteri* (MUIR). 56 – right genital style, lateral view; 57 – medioventral process of pygofer, ventral view; 58, 59: *Toya tuberculosa* (DISTANT). 58 – aedeagus, left side; 59 – aedeagus, right side.

Genus *Euidellana* METCALF

METCALF 1950: 61. Type species, *Euidellana carolinensis* METCALF 1950: 61.

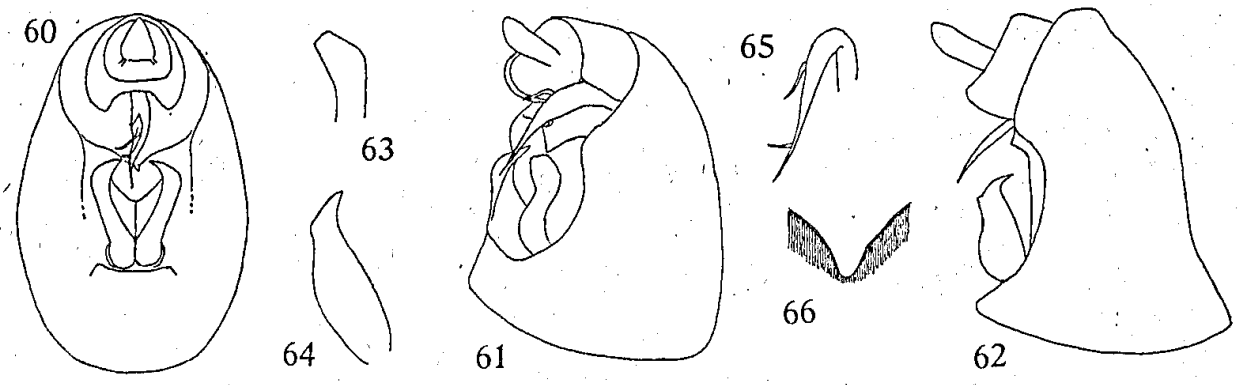
Euidellana celadon FENNAH

FENNAH 1975: 89.

Euidellana celadon trispinosa subsp. n. (Figs. 60–66).

Proportions of vertex, frons, antennal segments and pronotum, bodily size and coloration approximately as in typical subspecies.

Male genitalia generally similar to those of typical subspecies, but with the following differences: pygofer with dorsolateral angles moderately produced,



Figs. 60–66. *Euidellana celadon trispinosa* subsp. n. 60 – male genitalia, posterior view; 61 – male genitalia, posterolateral view; 62 – male genitalia, right side; 63 – apex of right genital style, posterior view; 64 – right genital style, lateral view; 65 – apex of aedeagus, right side; 66 – dorsal margin of diaphragm.

obtusely rounding; aedeagus with a short, rather delicate, spinose process ventrally on left subapically, directed lateroventrad (the upper and lower apical spines as in the typical subspecies); genital styles, in lateral view, more bluntly pointed apically.

Holotype ♂ of subspecies, Viet-nam: Lao Kay, 28. V. 1960 (K. G.) in Zool. Inst. P.A.N.

Genus *Opiconsiva* DISTANT

DISTANT 1917: 301. Type species, *Opiconsiva fuscovaria* DISTANT 1917: 301.

Opiconsiva dodona (FENNAH).

Corbulo dodona FENNAH 1965: 48.

2 ♂, Viet-nam: Lao Kay, 31. V. 1960 (K. G.).

Genus *Syndelphax* Fennah

Fennah 1963: 15. Type species, *Delphax matanitu* Kirkaldy 1907.

Syndelphax disonymos (Kirkaldy).

Delphax disonymos Kirkaldy 1907: 151, 156.
Delphax matanitu Kirkaldy 1907: 151, 155.

1 ♂, Viet-nam: Lao Kay, 10. V. 1960 (K. G.).

Genus *Harmalia* Fennah

Fennah 1969: 37. Type species, *Sogata thoracica* Distant 1916: 140.

Harmalia anacharsis Fennah.

Fennah 1969: 38.

2 ♂, Viet-nam: Hanoi, 3. V. 1966 (R. B. & B. P.).

Harmalia heitensis (Matsumura & Ishihara).

Sogata heitensis Matsumura & Ishihara 1945: 66.

1 ♂, Viet-nam: Tan chau, 3. II. 1960 (K. G.).

Genus *Toya* Distant

Distant 1906: 472. Type species, *Toya attenuata* Distant 1906: 472.

Toya propinqua (Fieber).

Delphax propinqua Fieber 1866: 325.

16 ♂, Viet-nam: Hanoi, 3. V. 1966 (R. B. & B. P.); Nghe An district, Phu Quy, 18. VI. 1959 (B. P. & J. P.).

Toya tuberculosa (Distant) (Figs. 58, 59).

Liburnia tuberculosa Distant 1916: 145.

2 ♂, Viet-nam: Lao Kay, 10. V. 1960 (K. G.); Co-loa, 9. 5. 1966 (R. B. & B. P.).

Genus *Sogatella* Fennah

Fennah 1956: 471 (as subgenus). Type species, *Delphax furcifera* Horváth 1899: 372.

Sogatella furcifera (Horváth).

Delphax furcifera Horváth 1899: 372.

9 ♂, 6 ♀, Viet-nam: Lao Kay, 28, 31. V. 1960 (K. G.); Co-loa, 20 km N. E. of Hanoi, 7, 9. V. 1966 (R. B. & B. P.).

Sogatella longifurcifera (ESAKI & ISHIHARA).

Delphacodes longifurcifera ESAKI & ISHIHARA 1947: 41.

2 ♂, Viet-nam: Lao Kay, 31. V. 1960 (K. G.).

Sogatella kolophon (KIRKALDY).

Delphax kolophon KIRKALDY 1907: 157.

1 ♂, Viet-nam: Co-loa, 20 km N.E. of Hanoi, 9. V. 1966 (R. B. & B. P.).

Genus ***Saccharosydne*** KIRKALDY

KIRKALDY 1907: 139. Type species, *Delphax saccharivora* WESTWOOD 1833: 413.

Saccharosydne sp.

3 ♀, Viet-nam: Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.).

Genus ***Terthron*** FENNAH

FENNAH 1965: 55. Type species, *Delphax anemonias* KIRKALDY 1907: 159.

Terthron albovittatum (MATSUMURA).

Liburnia albovittata MATSUMURA 1931: 1268.

5 ♂, Viet-nam: Lao Kay, 31. V. 1960 (K. G.).

Genus ***Tarophagus*** ZIMMERMAN

ZIMERMAN 1948: 245. Type species, *Megamelus proserpina* KIRKALDY 1907: 147.

Tarophagus proserpina (KIRKALDY).

Megamelus proserpina KIRKALDY 1907: 147.

5 ♂, Viet-nam: Hanoi, 3. V. 1966; Co-loa, 7. V. 1966 (R. B. & B. P.).

Genus ***Numata*** MATSUMURA

MATSUMURA 1935: 139. Type species, *Stenocranus sacchari* MATSUMURA 1910: 16.

Numata corporaali (MUIR) **comb. n.** (Figs. 67–72).

Dicranotropis corporaali MUIR 1923: 173.

1 ♂, Viet-nam: Lao Kay, 13. V. 1960 (K. G).

Numata muiri (KIRKALDY).

Dicranotropis muiri KIRKALDY 1907: 134.

2 ♂, Viet-nam: Lao Kay, 13. V. 1960 (K. G.).

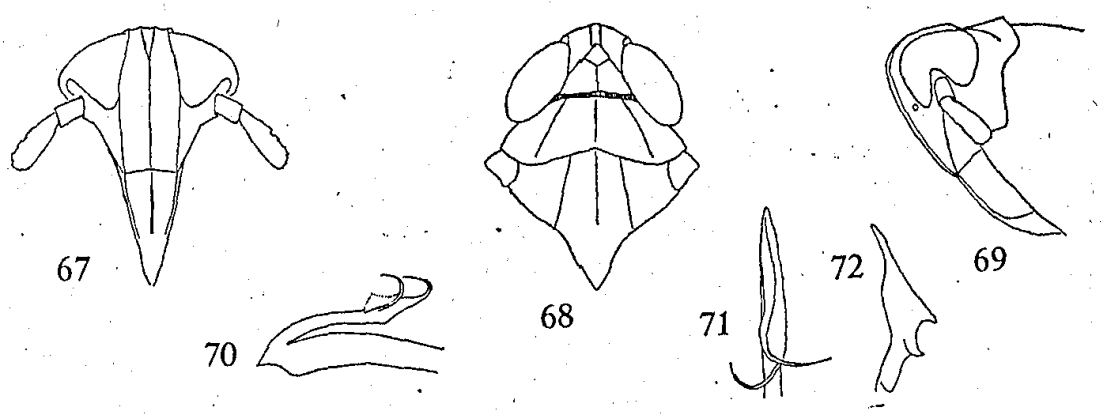
Genus ***Peregrinus*** KIRKALDY

KIRKALDY 1904: 175. Type species, *Delphax maidis* ASHMEAD 1890: 323.

Peregrinus maidis (ASHMEAD).

Delphax maidis ASHMEAD 1890: 323.

3 ♂, 9 ♀, Viet-nam: Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.); Lao Kay, 31. V. 1960 (K. G).



Figs. 67–72. *Numata corporaali* (MUIR). 67 – head, anterior view; 68 – head and thorax, dorsal view; 69 – head and pronotum, left side; 70 – aedeagus, right side; 71 – aedeagus, dorsal view; 72 – left genital style, posteroventral view.

Genus ***Perkinsiella*** KIRKALDY

KIRKALDY 1903: 179. Type species, *Perkinsiella saccharicida* KIRKALDY 1903: 179.

Perkinsiella bakeri MUIR.

MUIR 1916: 379.

2 ♂, 2 ♀, Viet-nam: Tan Chau, 28. I., 3. II. 1960 (K. G.).

Genus ***Veo***, novum

Width of head including eyes greater than length of eye (about 2.5 : 1). Vertex broader at base of middle line than long submedially (about 1.2 : 1), slightly narrower at apex than at base, lateral margins slightly concave, apical margin transverse, with submedian carinae only slightly prominent, median stem of Y-shaped carina absent or obscure; basal compartment of vertex wider at hind margin than greatest length (about 2.3 : 1) and than median length (about 3 : 1); frons longer in middle line than wide at widest part (about 1.9 : 1), widest at level of ocelli, lateral margins weakly sinuate between eyes, thence almost straight and slightly converging towards frontoclypeal suture, median carina forked at about level of ocelli; clypeus at base wider than frons at apex, post-clypeal disc longer than broad at base, tricarinate; rostrum not

quite attaining post-trochanters; ocelli small, blemmata present; antennae with basal segment cylindrical, widening distad, longer than broad at apex (about 1.4 : 1), second segment longer than first (about 2 : 1). Pronotum slightly longer in middle line than broad at anterior margin between lateral carinae (about 1.1 : 1), lateral carinae straight, not quite reaching hind margin; post-tibia longer than wide (about 11.5 : 1), post-tibial spur with about 25 teeth. Abdomen of male with eighth tergum fully exposed; seventh sternite of male longer than eighth, rectangulate at middle of anterior margin. Anal segment of male relatively large, collar-like, apical margin membranous. Pygofer with posterior opening longer dorsoventrally than broad (about 1.5 : 1), in side view moderately long dorsally, long ventrally, lateral margins shallowly convex, a medioventral process present; diaphragm deep at sides, narrow medially, where it is produced caudad in a moderately long narrow lip. Aedeagus long and moderately stout, moderately decurved in distal third, a flagellum, about half as long as phallobase, arising dorsally at apex, directed cephalad. Genital styles moderately long, diverging only in basal third.

Type species, *Veo loxias* sp. n.

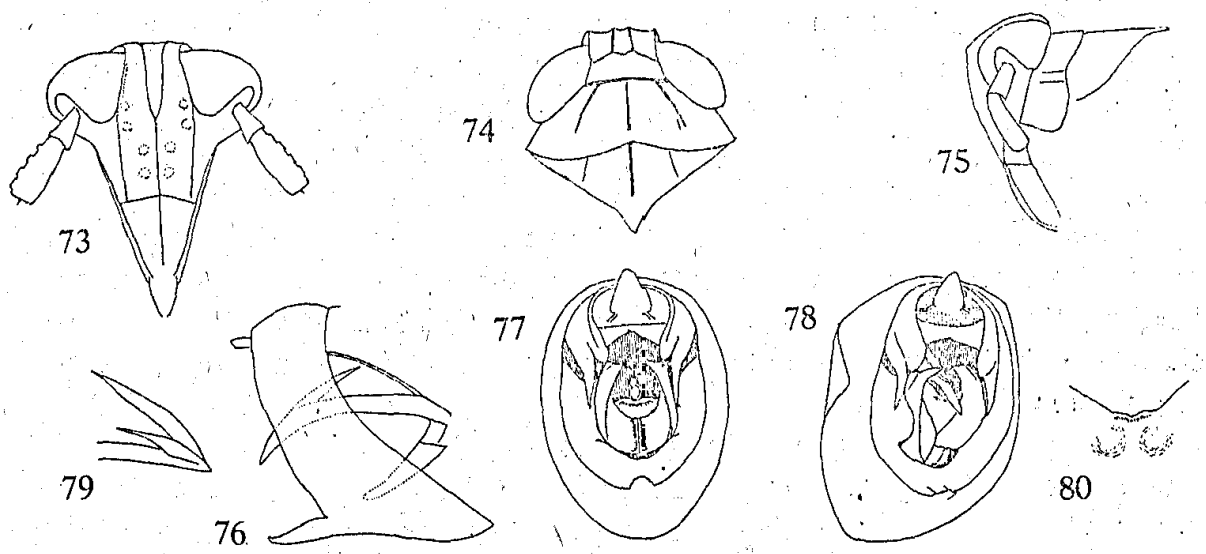
The relatively broad vertex and long medioventral process of the pygofer suggest an affinity with *Phacalastor*, but the two genera differ widely in structural details of the male genitalia. For example, in *Phacalastor* the base of the aedeagus in repose does not extend cephalad beyond the level of the anterior margin of the side of the pygofer, whereas in *Veo* it does so; in *Phacalastor* the diaphragm is deeply excavate, and its median portion is a slender strut, but in *Veo* the diaphragm is rather shallowly excavate and the median portion is broad.

***Veo loxias* sp. n.** (Figs. 73–80).

Vertex broader at base of middle line than long submedially (1.2 : 1), basal compartment wider at hind margin than greatest length (2.3 : 1) and than median length (3.1 : 1); frons longer in middle line than wide at widest part (1.9 : 1); frontoclypeal suture moderately impressed; postclypeus in profile moderately convex, anteclypeus weakly convex; antennae with basal segment longer than broad at apex (1.4 : 1), second segment longer than first (2 : 1). Pronotum longer in middle line than broad at anterior margin between lateral carinae (1.1 : 1).

Yellowish brown; about 12 spots on pronotum, an area on each gena, lateral carinae of frons and 3 or 4 dark pustules on each side of pronotum behind eye, paler; abdomen dark castaneous, light yellowish brown along middle area of terga. Anal segment and pygofer light yellowish brown dorsally, dark castaneous laterally and ventrally.

Anal segment of male relatively large, short, collar-like, apical margin membranous, concave, lateroapical angles each produced ventrad in a stout spine, demarcated basally from side of anal segment by a groove. Pygofer longer dorsoventrally than wide (about 1.5 : 1), dorsolateral angles obtuse,



Figs. 73–80. *Veo loxias* gen. et sp. n. 73 – head, anterior view; 74 – head and thorax, dorsal view; 75 – head and thorax, left side; 76 – pygofer, with aedeagus shown in transparency, right side; 77 – male genitalia, posterior view; 78 – male genitalia, posterolatera view; 79 – apex of aedeagus, left side; 80 – median portion of diaphragm, posterior view

not produced, lateral margins very shallowly convex, medioventral process relatively long, subtriangular, stout; diaphragm deep at sides, broadly and moderately excavate dorsally, strongly and rather narrowly produced caudad medially in a lip, submedian areas of diaphragm tumid. Aedeagus moderately long, acute apically, flagellum rather more than half as long as aedeagus, blade-like, a second blade-like process arising dorsally at apex of aedeagus to left of flagellum, directed dorsocephalad; suspensorium Y-shaped with distal rami shorter than common stem; basal plate strut moderately short, broad basally, tapering distad. Genital styles moderately long, apposed at base, each with a small lobe basally extending caudad, each style twisted, in posterior view with outer margin convex, inner margin concave, inner and outer apical angles slightly produced, acute.

Male (brachypterous): length, 2.5 mm.

Holotype ♂, Viet-nam: Bao Ha, S. Fan-si-Pan, 4–11. IV. 1962 (A. W.), in Inst. Zool. P.A.N.

Genus ***Cemopsis***, novum

Vertex wider at base of middle line than long submedially (about 1.2 : 1), wider at base than at apex, apical margin truncate with submedian carinae a little prominent, Y-shaped carina present, basal compartment of vertex wider at hind margin than greatest length (about 2.2 : 1); vertex in profile rounding into frons. Frons in middle line longer than wide at widest part (about 2 : 1), widest near level of lower margin of eyes, lateral margins slightly sinuate between eyes, thence straight and slightly converging, median carina forking near level of ocelli; frontoclypeal suture moderately impressed, post-clypeal disc longer than broad at base, tricarinate; rostrum not attaining post-trochan-

ters; ocelli present; antennae with basal segment cylindrical, longer than broad at apex (about 1.4 : 1), second segment longer than first (about 2.3 : 1). Pronotum wider at anterior margin between lateral carinae than long in middle (about 1.5 : 1), lateral carinae weakly concave, not attaining hind margin. Anal segment of male moderately long, collar-like, lateroapical angles produced, apical margin not sclerotised. Pygofer short, deep dorsoventrally, with ventral surface strongly convex; diaphragm rather deep, sclerotised on its dorsal margin; a small medioventral process present. Aedeagus tubular, straight; suspensorium Y-shaped, with common stem rather longer than a distal arm; basal plate strut strongly curved.

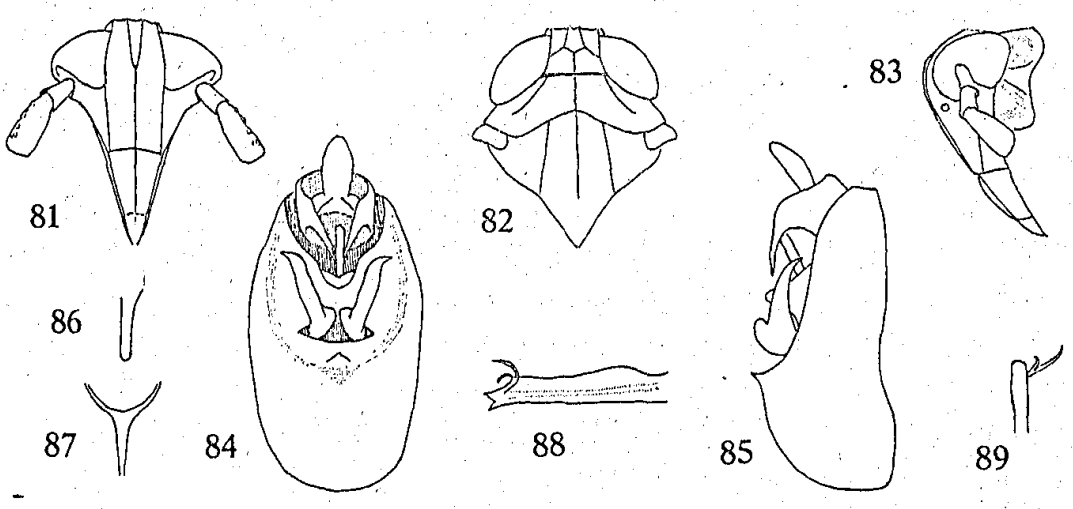
Type species: *Cemopsis griphus* sp. n.

This genus is separable from *Phacalastor*, *Euconon* and *Thymalops* by the shape of the pygofer, in which it rather closely approaches *Cemus*. It stands apart from *Cemus* in the relatively shorter antennae and relatively longer postclypeus, and in the straight aedeagus and more broadly excavate and produced upper margin of the diaphragm.

The generic name is of feminine gender.

***Cemopsis griphus* sp. n.** (Figs. 81–89).

Vertex wider at base of middle line than long submedially (1.2 : 1), wider at base than at apex (1.3 : 1), rounding obtusely into frons, lateral margins shallowly concave, basal compartment of vertex wider at hind margin than greatest length (2.2 : 1) and than median length (2.9 : 1); frons in middle line longer than wide at widest part (2 : 1); clypeus at base slightly wider than frons at apex, a little longer than wide; antennae with basal segment cylindrical, longer than broad at apex (1.4 : 1), second segment longer than first (2.3 : 1). Pronotum wider at anterior margin between lateral carinae than long



Figs. 81–89. *Cemopsis griphus* gen. et sp. n. 81 — head, anterior view; 82 — head and thorax dorsal view; 83 — head and pronotum, left side; 84 — male genitalia, posterior view; 85 — male genitalia, right side; 86 — apex of lateroapical process of anal segment; 87 — suspensorium, dorsal view; 88 — aedeagus, right side; 89 — apex of aedeagus, ventral view.

in middle (1.5 : 1). Femora and tibiae of fore- and middle legs not dilated; post-tibia longer than broad (14.3 : 1), spur with about 32 teeth.

Pale yellowish brown; carinae of head, margins of pleurites and legs, stramineous; a large spot on metapleura, fuscous. Tegmina hyaline, apical veins of *Sc* and *R* and a submarginal band in posterior half of membrane, not including median areas of apical cells of *M* and Cu_1, fuscous. Wings white, with fuscous veins.

Anal segment of male with lateroapical angles strongly produced mesoventrad, each tapering into a spinose process that is blunt-tipped. Pygofer with posterior opening longer dorsoventrally than broad, its edges not sharply demarcated; a small triangular process present medially on ventral margin; diaphragm moderately deep, its dorsal margin excavate medially, heavily sclerotised and produced caudad. Aedeagus tubular, moderately long, straight, orifice at apex, two small unequal spinose processes arising dorsally at apex, directed to right. Genital styles moderately long, simple, in posterior view each with a basal lobe that meets its counterpart in the middle line; apex of style slightly curved laterad.

Male: length, 2.2 mm.; tegmen, 3.4 mm.

Holotype ♂, Viet-nam: Lao Kay, 28. V. 1960 (K. G.) in Inst. Zool. P.A.N.

Genus *Cemus* Fennah

Fennah 1964: 147. Type species, *Cemus leviculus* Fennah 1964: 148.

Cemus sauteri (Muir) (Figs. 56, 57).

Phyllodinus sauteri Muir 1917: 319.

1 ♂, Viet-nam: Lao Kay, 2. V. 1960 (K. G.).

In the above male, as in representatives of this species from Ceylon, the genital styles are furnished with a small rounded lobe on the outer margin in the apical half. In Muir's figure (1917:313, fig. 25a) this process is shown as almost a blunt spine, and this form agrees with his genitalic mount in the British Museum (Nat. Hist.).

Genus *Platypareia* Muir

Muir 1934: 579. Type species, *Platypareia albipes* Muir 1934: 579.

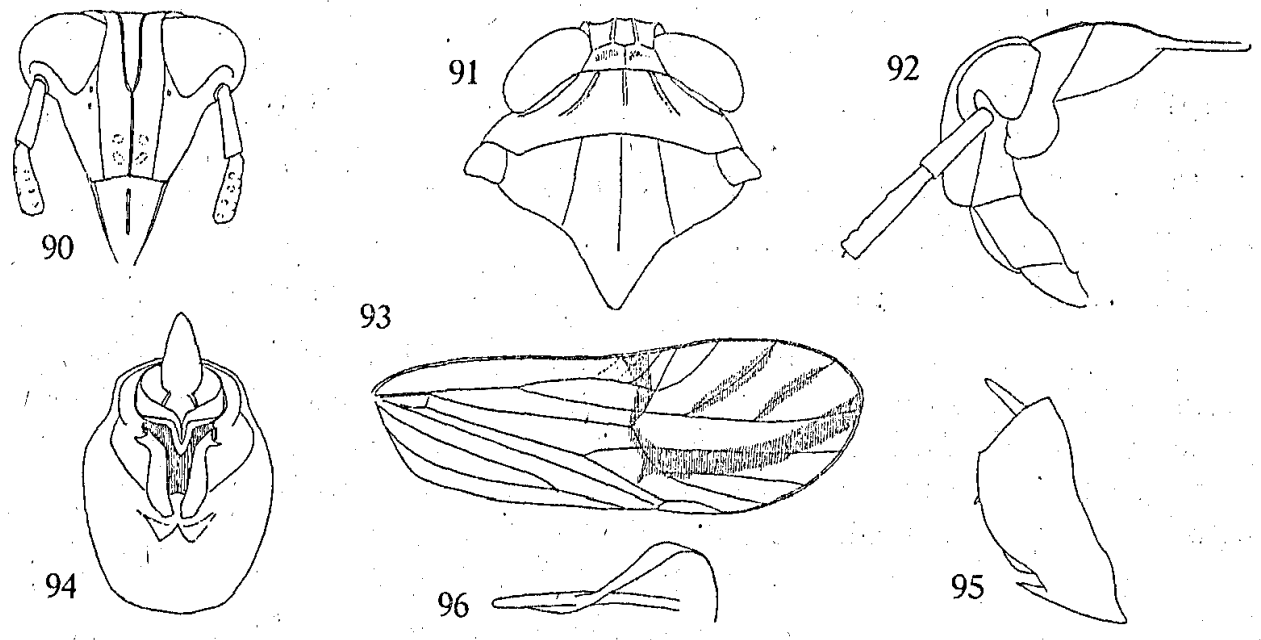
Platypareia albipes Muir.

Muir 1934: 579.

Platypareia albipes ocellata subsp. n. (Figs. 90–96).

Portion of frons and vertex visible in dorsal view as long as wide at base of middle line. Vertex obtusely rounding into frons, slightly narrower at apex

than at base, lateral margins slightly concave, apical margin transverse with submedian carinae only slightly prominent, Y-shaped carina distinct, submedian carinae not uniting on vertex, basal compartment of vertex wider at hind margin than greatest length (2.7 : 1) and than median length (3.3 : 1); frons sloping anteriorly, longer in middle line than wide at widest part (2.3 : 1), widest just below level of eyes, lateral margins concave between eyes, straight distally and converging slightly towards frontoclypeal suture, median carina forked at level of ocelli; clypeus at base distinctly wider than frons at apex, recessed below frontoclypeal suture, postclypeal disc longer than broad at base, tricarinate, in profile moderately convex, anteclypeus in profile moderately convex; rostrum not attaining post-coxae; antennae cylindrical, reaching to apex of post-clypeus, basal segment longer than broad at middle (4.7 : 1), second segment longer than first (about 1.3 : 1); ocelli distinct. Pronotum longer in middle line than broad at anterior margin between lateral carinae (1.3 : 1), lateral carinae weakly sinuate, strongly diverging, not attaining hind margin, area behind eyes slightly tumid. Mesonotum tricarinate, with carinae feeble. Post-tibiae with 2 spines laterally, 5 apically, basal metatarsal segment with 7 teeth, second segment with 4; profemora and protibiae only moderately dilated; post-tibial spur with about 27 teeth.



Figs. 90–96. *Platypareis albipes ocellata* subsp. n. 90 — head, anterior view; 9 — head and thorax, dorsal view; 92 — head and thorax, left side; 93 — tegmen; 94 — male genitalia, posterior view; 95 — male genitalia, right side; 96 — aedeagus, right side.

Reddish brown; carinae of head, hind margin of pronotum, rostrum, tibiae and basal tarsal segments at apex, second and third tarsal segments entirely, and post-tibial spur, stramineous; median carina and lateral fields of pronotum and apex of mesepimeron, white. Tegmina milky hyaline, light yellowish brown, granules on veins of corium, a suffusion at apex of costal

cell, in M at transverse line, along R_s and M_1 in membrane and along margin from claval apex to apex of tegmen, yellowish brown. Wings milky hyaline, with brown veins.

Anal segment of male short, ring-like, very narrow at apex. Pygofer with dorsolateral angles slightly produced, angulate; medioventral process triangular; diaphragm deep, dorsal margin transverse, deeply and narrowly incised at middle. Aedeagus relatively long, arising ventrally, curving cephalad and dorsad, then caudad and ventrocaudad, a long, moderately broad flagellum arising apically, directed caudad above aedeagus and curved to right in distal third; suspensorium Y-shaped, elongate. Genital styles each moderately narrow, of subequal width throughout, horizontal in basal portion, bent dorsad through 90° at middle, a little sinuate in distal half, strongly bent laterad near apex and shortly bicuspidate apically.

Male: length, 3.0 mm.; tegmen, 4.0 mm.

Holotype ♂ of subspecies, Viet-nam: Lao Kay, 10. V. 1960 (K. G.) in Inst. Zool. P.A.N.

This subspecies differs from typical *P. albipes* in the presence of ocelli. Moreover, in the typical subspecies there are ivory-white pustules on the frons and the genae are dark fuscous. In the subspecies *ocellata* the genae are scarcely darker than the frons and the pustules on the frons are only a little lighter than the ground colour.

Genus ***Sinolacme***, novum

Width of head greater than length of eye (2.3–2.4 : 1). Vertex in dorsal view broader than long, posterior compartment broader than its greatest length (2.7–2.8 : 1) and than median length (about 3 : 1); vertex in profile obtusely rounding into frons; frons longer than broad (about 1.7 : 1), widest at level of lower margin of eyes, median carina forking at level of ocelli, disc very slightly ascending from lateral margins to median carina; postclypeus very little wider than frons at apex, rather tumid, finely tricarinate; rostrum attaining post-coxae; ocelli small, eyes reniform; basal antennal segment cylindrical, longer than broad (2.0–2.5 : 1), second segment longer than first (1.5–1.8 : 1), antennae reaching to level of middle of clypeus. Pronotum as long in middle as broad at anterior margin between lateral carinae, lateral carinae diverging laterad, not reaching hind margin; mesonotum with median carina percurrent, lateral carinae diverging caudad. Femora and tibiae of fore- and middle legs not dilated; post-tibiae longer than broad at middle (10.5–11.0 : 1), spur with about 24 teeth. Anal segment of male short and broad, lateroapical angles strongly produced, apical margin long, membranous. Pygofer short dorsally, long ventrally, lateral margins slightly produced caudad at middle; diaphragm moderately deep at middle, dorsal margin broadly angulately excavate; a pair of processes present medioventrally. Aedeagus rather long, stout, decurving distad, with a reflected flagellum at apex. Genital styles simple.

Type species, *Dicranotropis huensis* FENNAH.

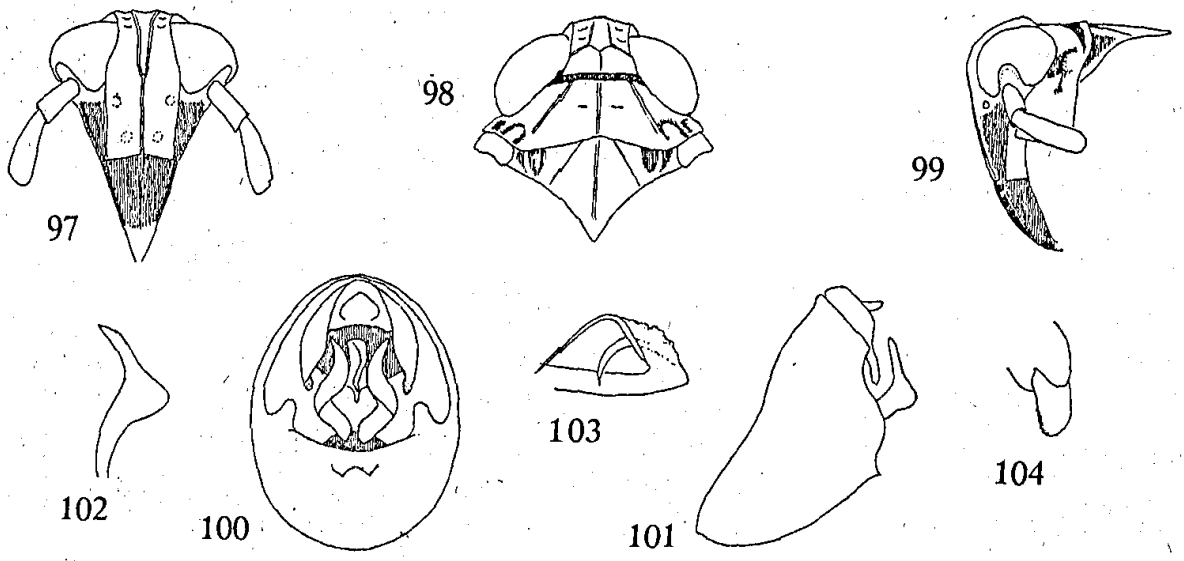
The generic name, an arbitrary combination of letters, is regarded as feminine.

Members of this genus are recognisable by the form of the frons and vertex, the sombre coloration, the arcuate and twisted genital styles and the paired lobes on the ventral margin of the pygofer.

Sinolacme huensis (FENNAH). (Figs. 97–104).

Dicranotropis huensis FENNAH 1956: 469.

Anal segment with lateroapical angles each strongly produced ventrad in a tapering process that is bluntly pointed apically. Pygofer with dorsolateral angles obtuse, not produced; lateral margins produced in a small rounded eminence at middle; diaphragm with dorsal margin obtusely angulately excavate, produced caudad in a lip at middle. Aedeagus moderately long, moderately decurved in distal half; a flagellum arising dorsally at apex, largely membranous, the right side with a blade-like process strongly deflexed and tapering in its distal half, and the left side with a slender sclerotised process, apparently membranous at its base, curving arcuately cephalad and tapering to a slender spine, much surpassing process of right side; a minute tooth, directed ventrocephalad, ventrally at apex of aedeagus. Genital styles simple, in lateral view narrow and rectangulately bent dorsad near middle, in posterior view, styles diverging from base, converging again at distal two-thirds then diverging again, twisted, narrowing apically to a very blunt point.



Figs. 97–104. *Sinolacme huensis* (FENNAH). 97 – head, anterior view; 98 – head and thorax, dorsal view; 99 – head and thorax, left side; 100 – male genitalia, posterior view; 101 – male genitalia, left side; 102 – left genital style, lateral view; 103 – apex of aedeagus, left side; 104 – apex of dorsoapical process of anal segment.

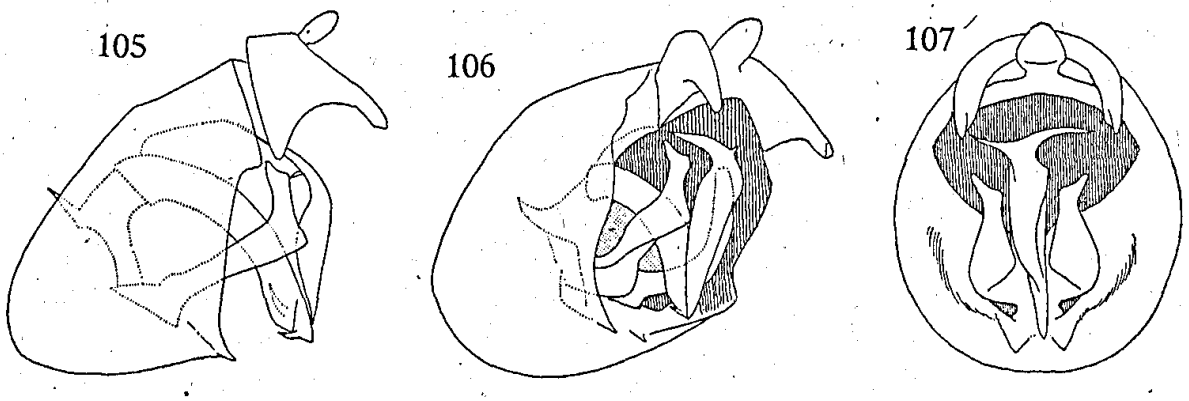
1 ♂, Viet-nam: Bao Ha, S. Fan-si-Pan, 4–11. IV. 1962 (A. W.).

This specimen, like the type, is brachypterous.

***Sinolacme tyranna* sp. n.** (Figs. 105–107).

Vertex broader than long, little surpassing eyes, posterior compartment broader than its greatest length (2.7 : 1) and than median length (3.2 : 1); frons longer than broad (1. 7: 1), antennae with basal segment longer than broad (2.0 : 1), second segment longer than first (1.8 : 1). Tegmina with apical margin moderately deeply rounded; $Sc+R$ fork basad of Cu_1 fork.

Dark reddish brown; vertex, antennae, lateral carinae of pronotum and mesonotum yellowish brown; legs and rostrum stramineous.



Figs. 105–107. *Sinolacme tyranna* gen. et sp. n. 105 — male genitalia, left side; 106 — male genitalia, posterolateral view; 107 — male genitalia, posterior view.

Male genitalia generally similar to those of *S. huensis*. Anal segment with lateroapical angles slightly less produced than in *S. huensis*. Pygofer with dorsolateral angles slightly but distinctly produced; diaphragm produced caudad at middle of upper margin in a lip-like process, and below this, on each side of middle line, a relatively large tumescence. Aedeagus with flagellum relatively long, sclerotised and pigmented, rathe rtectiform in its basal two-thirds, flattened in its apical third, giving off a spinose process on right, directed ventrad, in apical third, and a horizontal slender spinose process to right and to left at apex; phallobase with a small tooth ventrally on left at apex and a short curved spinose process on right arising apically and lying along right side. Genital styles with outer apical angle produced, distally blunt or subtruncate, inner apical angle obtuse.

Male: length, 2.8 mm.; tegmen, 3.3 mm.

Holotype ♂, China: Foochow, 10–14. VII. 1936 (M. S. YANG), in B. M. (N. H.).

This species is most readily separable from *S. huensis* by the more distinctly produced dorsolateral angles of the pygofer, the spinose armature of the aedeagus and the structure of the flagellum, and the shape of the distal portion of the genital styles.

Genus ***Zanchetrius***, novum·

Vertex longer submedially than wide at base of middle line (about 1.3 : 1), as wide at base as at apex, apical margin convex, Y-shaped carina present, basal compartment of vertex wider at hind margin than greatest length (about 1.7 : 1). Width of head, including eyes, greater than length of an eye (2 : 1). Frons in middle line longer than wide at widest part (about 2 : 1), widest near level of lower margin of eyes, lateral margins shallowly convex, median carina forking near level of middle of eyes; frontoclypeal suture only slightly impressed, postclypeal disc about as long as broad at base, tricarinate; rostrum not attaining post-trochanters; ocelli present; antennae with basal segment cylindrical, longer than broad at apex (about 1.2 : 1), second segment longer than first (about 2.4 : 1). Pronotum as long in middle as broad at anterior margin between lateral carinae, lateral carinae straight, not quite attaining hind margin. Anal segment of male short, lateroapical angles broadly produced laterad, apical margin sclerotised. Pygofer short dorsally, long ventrally, with ventral surface not strongly convex; diaphragm moderately deep at middle, with dorsal margin weakly concave, slightly produced caudad medially, sclerotised; a small medioventral process present. Aedeagus tubular, moderately long, about one-sixth longer than basal plate strut, shallowly curved, with a rather short flagellum; suspensorium with arms longer than common stem.

Type species, *Zanchetrius murgiso* sp. n.

This genus is characterised by the relatively long vertex (and consequent angular profile of the head), relatively short antennae, the form of the pygofer and its diaphragm, and the relative lengths of th emain limb of the aedeagus, the basal plate strut, and the flagellum, and the structure of the last. Its affinities are uncertain: the structure of the aedeagus is nearest to that in *Sinolacme*.

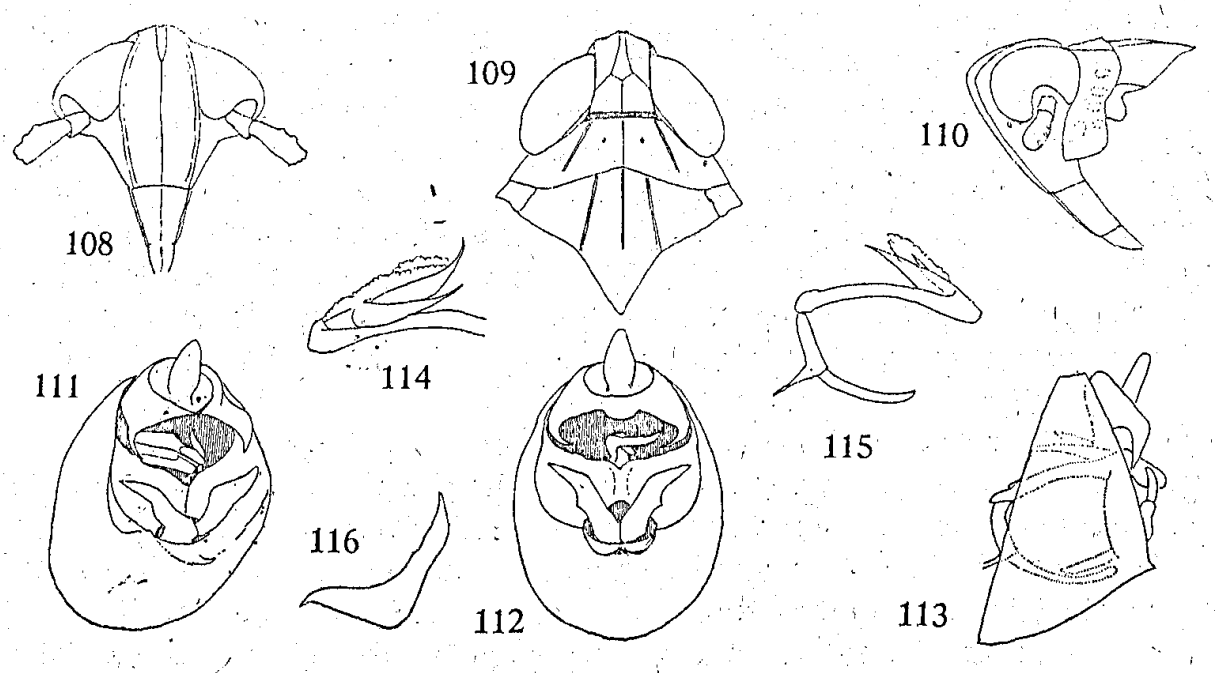
The generic name is an arbitrary combination of letters, and is regarded as being of masculine gender.

Zanchetrius murgisd **sp. n.** (Figs. 108–116).

Vertex longer submedially than broad at base of middle line (1.3 : 1), in profile meeting frons acutely, almost as wide at apex as at base, lateral margins straight, apical margin convex, with carinae weakly prominent, Y-shaped carina distinct, basal compartment of vertex wider at hind margin than greatest length (1.7 : 1) and than median length (1.9 : 1); frons in middle line longer than wide at widest part (2 : 1), widest at middle, lateral margins shallowly convex, median carina narrowly and rather indistinctly forking at level of middle of eyes; frontoclypeal suture slightly impressed, clypeus at base scarcely wider than frons at apex, postclypeal disc as long as broad at base, tricarinate, in profile almost straight, anteclypeus in profile weakly convex, entire clypeus in profile shallowly convex, rostrum not surpassing post-coxae; antennae cylindrical, reaching to basal third of post-clypeus, basal segment longer than broad (1.2 : 1), second segment longer than first (2.4 : 1); ocelli present, blem-

mata obscure or absent. Pronotum as long medially as broad at anterior margin between lateral carinae, lateral carinae straight, not quite attaining hind margin, area immediately behind eyes not tumid. Mesonotum weakly tricarinate; femora and tibiae of fore- and middle legs not compressed or dilated, post-tibiae longer than broad (9.8 : 1), post-tibial spur with about 21 teeth. Tegmina with $Sc+R$ fork slightly basad of Cu_1 fork.

Light yellowish brown; carinae of head and thorax, four pustules behind each eye, antennae, clypeus, rostrum and legs, ochraceous; a spot on pleura, fuscous.



Figs. 108–116. *Zanchetrius murgiso* gen. et sp. n. 108 – head, anterior view; 109 – head and thorax, dorsal view; 110 – head and thorax, left side; 111 – male genitalia, posterolateral view; 112 – male genitalia, posterior view; 113 – male genitalia, left side; 114 – apex of aedeagus, right side; 115 – aedeagus, left side; 116 – genital style, lateral view.

Anal segment of male short, lateroapical angles widely separated, each produced mesoventrad in a short stout spinose process, apical margin not membranous, slightly convex at middle. Pygofer short dorsally, long ventrally, dorsolateral angles not produced, lateral margin straight, vertical, ventral margin shallowly excavate, with a small acute process medially; diaphragm moderately narrow at middle, dorsal margin shallowly concave, slightly notched and produced caudad medially. Aedeagus moderately long and slender, a flagellum arising dorsally at apex, reflected cephalad, membranous dorsally, tapering dorsocephalad and extending above aedeagus for a little more than half its length, a broad process, tapering distad, arising on right near its base and extending laterocephalad; suspensorium only moderately long, with distal rami each longer than common stem, which is short and broad; basal plate strut about five-sixths of length of aedeagus, relatively narrow. Genital styles mode-

rately long, in posterior view apposed at base, diverging laterodorsad, each with inner margin straight and outer margin with a small triangular lobe medially, style slightly bent outward in distal quarter and acute at apex.

Male: length, 2.1 mm.; tegmen, 3.0 mm.

Holotype ♂, Viet-nam: Tan chau, 6. II. 1960 (K. G.) in Inst. Zool. P.A.N.

Genus ***Palego***, novum

Width of head, including eyes, greater than length of an eye (2.1 : 1). Vertex longer than wide at base of middle line (about 1.1 : 1), in profile subrectangulately rounding into frons, a little narrower at apex than at base of middle line, lateral margins straight, or nearly so, apical margin truncate with submedian carinae a little prominent, Y-shaped carina present, submedian carinae not uniting on vertex, basal compartment of vertex wider at hind margin than greatest length (about 1.75 : 1) and than median length (about 2 : 1); frons in middle line longer than wide at widest part (about 2.1 : 1). widest at apex, wider at apex than at base, lateral margins slightly sinuate between eyes, thence straight and slightly diverging, median carina forked near level of lower margin of eyes; clypeus at base scarcely wider than frons at apex, postclypeal disc slightly longer than broad at base, tricarinate; rostrum not surpassing post-coxae; ocelli distinct; antennae reaching to level of middle of post-clypeus, basal segment cylindrical, longer than broad (about 2 : 1), second segment longer than first (about 1.5 : 1). Pronotum slightly longer in middle line than broad at anterior margin between lateral carinae, lateral carinae straight, not quite attaining hind margin; mesonotum with median carina percurrent, lateral carinae feeble, slightly diverging caudad. Femora and tibiae of fore and middle legs not dilated; post-tibial spur with about 28 teeth. Eighth abdominal tergum moderately long, exposed. Anal segment of male short and broad, lateroapical angles widely separated, apical margin membranous. Pygofer rather short dorsally, long ventrally, dorsolateral angles not produced but lateral margins in side view strongly convex, diaphragm moderately deep, its upper margin shallowly concave, broadly incised and produced caudad medially. Aedeagus long and slender, with a moderately long flagellum arising dorsally at apex; suspensorium with distal rami each longer than common stem; basal plate strut short, almost horizontal in repose. Genital styles moderately diverging distad.

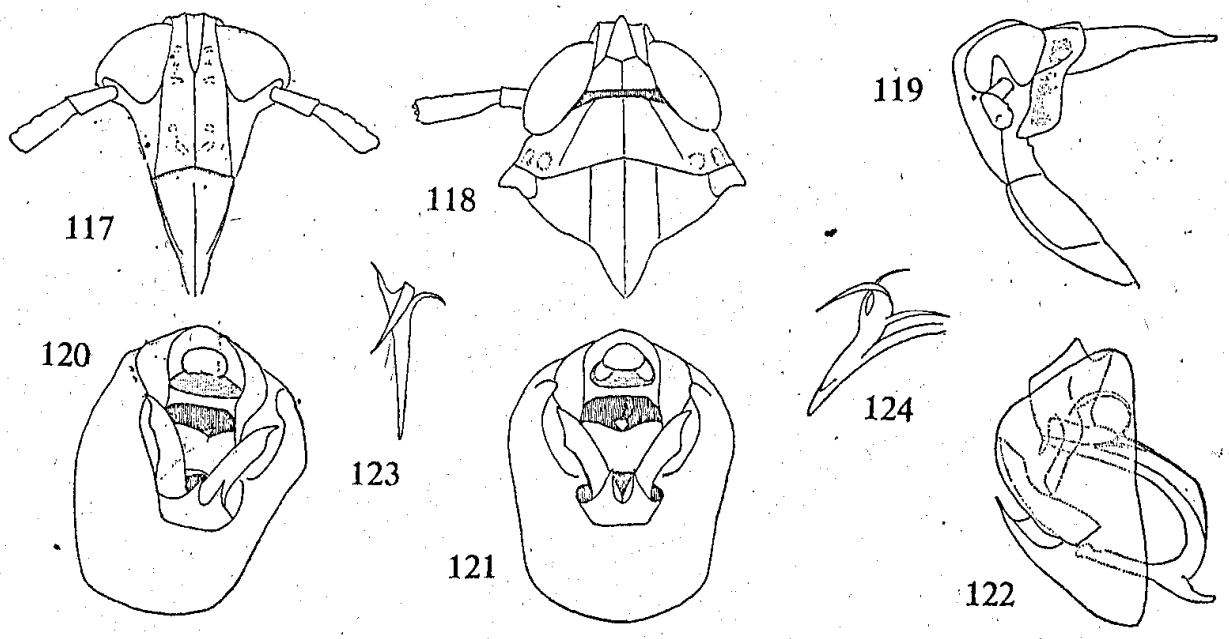
Type species, *Palego simulator* sp. n.

This genus is distinguishable by the shape of the vertex and frons, the straight pronotal carinae, the percurrent median mesonotal carina, the exposed eight abdominal tergum, and, in the male genitalia, the occurrence of a long slender aedeagus in combination with an anal segment with a broad membranous apical margin. The structure of the diaphragm is rather similar to that in *Zanchetrius*, but the proportions of the aedeagus and the basal plate strut are very different.

Palego simulator **sp. n.** (Figs. 117–124).

Vertex longer submedially than broad (about 1.1 : 1), narrower at apex than at base (1 : 1.4), basal compartment of vertex wider at hind margin than greatest length (1.75 : 1) and than median length (2 : 1); frons in middle line longer than wide at widest part (2.1 : 1), widest at apex, median carina forked near level of middle of eyes; frontoclypeal suture impressed; postclypeal disc longer than broad at base (1.3 : 1); rostrum scarcely attaining post-coxae; antennae with basal segment cylindrical, longer than broad at middle (2.7 : 1) and at apex (2.4 : 1), second segment longer than first (1.4 : 1); ocelli and blemmata present. Pronotum longer in middle than broad at anterior margin between lateral carinae (1.5 : 1); post-tibia longer than broad (12 : 1), its spur with about 28 teeth.

Ochraceous; intercarinal areas of head and thorax a little darker, a large spot on metapleura and a narrow stripe along postfemora, fuscous. Tegmina hyaline, a band from transverse line to apical margin, overlying cell M_{3+4}, second apical vein in membrane and a linear mark on sutural margin just basad of entry of common claval vein, dilute fuscous, veins (except second apical) concolorous. Wings hyaline, with fuscous veins.



Figs. 117–124. *Palego simulator* gen. et sp. n. 117 – head, anterior view; 118 – head and thorax, dorsal view; 119 – head and thorax, left side; 120 – male genitalia, posteroventral view; 121 – male genitalia, posterior view; 122 – male genitalia, right side; 123 – apex ofaedeagus, dorsal view; 124 – apex of aedeagus, posterodorsal view from right.

Anal segment short, lateroapical angles widely separated, each produced ventrad in a stout, moderately long spinose process. Pygofer short dorsally, long ventrally, dorsolateral angles not produced, lateral margins rather strongly convex, ventral margin produced caudad at middle in a pair of spinose pro-

cesses; diaphragm narrow medially, a small lip medially just below aedeagus. Aedeagus long, slender, a flagellum arising dorsally at apex, directed cephalad, widening distad and terminating in 3 rather long spinose processes, the outer 2 directed cephalad, and the median process, which is broader than the others, directed dorsad then curving caudad; suspensorium with distal rami long and slender. Genital styles broad basally, directed almost caudad, only slightly ascending in distal half, each with inner margin slightly convex, outer margin sinuate, apex acute, directed laterocaudad.

Male: length, 3.0 mm.; tegmen, 3.8 mm.

Holotype ♂, Viet-nam: Lao Kay, 2. V. 1960 (K. G.) in Inst. Zool. P.A.N.

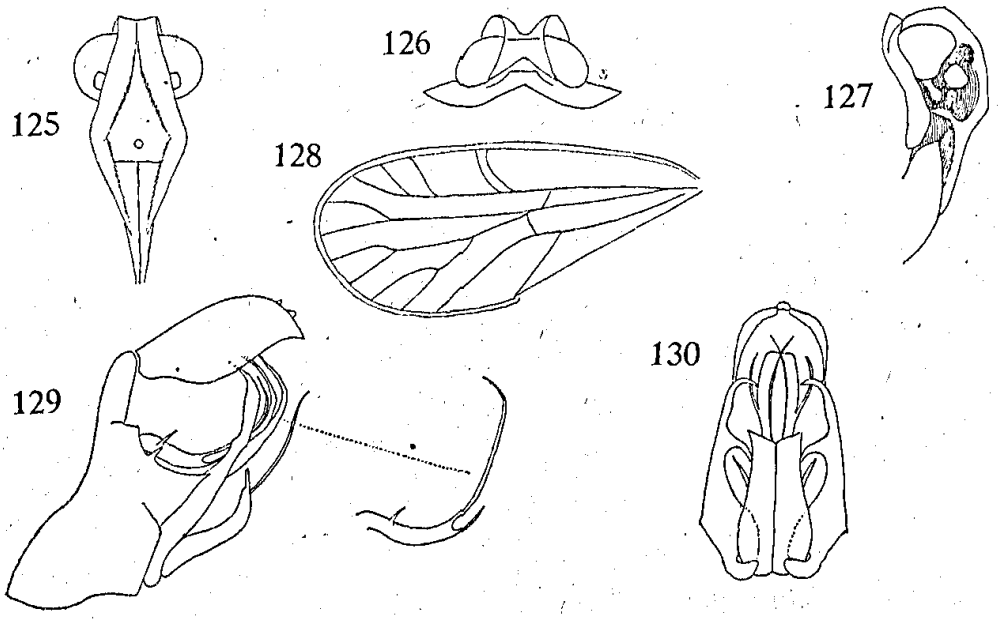
Family *Kinnaridae* Muir

Genus *Kinnara* Distant

Distant 1906: 8. Type species, *Pleroma ceylonica* Melichar 1903: 42.

***Kinnara doto* sp. n.** (Figs. 125–130).

Vertex broader between basal angles than long at sides (1.5 : 1), and than at apex (nearly 1.4 : 1). Tegmina with *Sc+R* not forming a common stem with *M*.



Figs. 125–130. *Kinnara doto* sp. n. 125 – head, anterior view; 126 – head and pronotum, dorsal view; 127 – head, right side; 128 – tegmen; 129 – male genitalia, left side; 130 – male genitalia, posteroventral view.

Head, thorax and legs light yellowish brown, margins of frons and clypeus finely, median carina of clypeus, profemora and protibiae, fuscous. Tegmina brownish yellow, diffuse spots in costal cell and cell *Sc+R* and in apical cells

of *M* subhyaline, powdered greyish white. Wings smoky, with opalescent reflections, veins dark fuscous.

Anal segment of male relatively long, in dorsal view widening distad, lateral margins curving into apical margin distally, in profile sinuate. Pygofer short dorsally, long ventrally, lateral margins shallowly excavate and almost horizontal in upper half, with a small spine near base of aedeagus, ventrolateral processes very long, directed dorsad, each with a stout spinose process on inner margin near middle, extending mesad, ventrolateral processes slightly dilated at at about four-fifths from base, thence tapering and curving cephalad; dorsolateral angles of pygofer strongly inflected and giving rise to a stag's-horn-like process that extends dorsolaterally along aedeagus and gives off two spinose processes laterally and tapers into a slender spine apically. Aedeagus long, curved upward distad, comprising a long median process, slender and curved cephalad distally, and two pairs of processes behind and slightly to the side of it, one pair slender and submembranous, and as long as the median process, the other shorter and broader; below the aedeagus basally, and arising separately from the main stem, a pair of long, slender, almost filamentous processes, each directed dorsad, weakly sinuate and abruptly bent dorsolaterad shortly before apex. Genital styles simple, moderately broad, apposed for most of their length, slightly narrowing distad, with outer apical angle acute.

Male: length, 3.3 mm.; tegmen, 5.6 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.), in Inst. Zool. P.A.N.

In the single incomplete tegmen of the type specimen, the venation appears to be generally similar to that in *K. maculata* DISTANT (1916: 60), but there is a branch of *R* crossing to *M* at middle of the tegmen. From the species of *Kinnara* in which the wings are dark (*bakeri* MUIR, *brunnea* MUIR, *ceylonica* MEL., *flavofasciata* DIST., *flavifrons* MUIR, *fumata* MEL.) *K. doto* differs variously in colour of mesonotum or of tegmina, in the shape of the frons and in details of genitalic structure.

Family *Meenoplidae*

Genus *Anigrus* STÅL

STÅL 1866: 172. Type species, *Anigrus sordidus* STÅL 1866: 173.

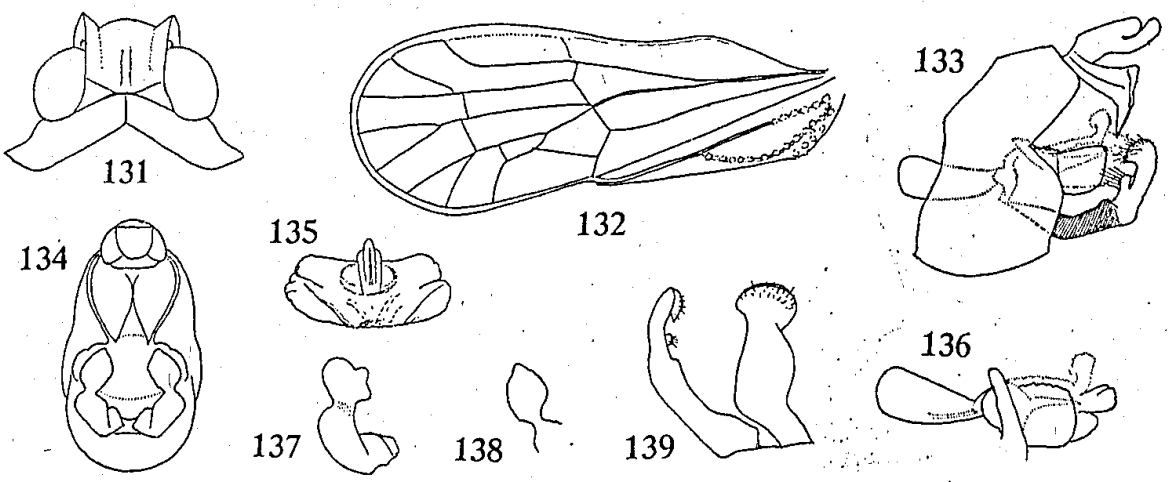
***Anigrus nudifrons* sp. n.** (Figs. 131–139).

Vertex with laterobasal facets not reaching to middle line; frons ecarinate, median ocellus present; postclypeus medially ecarinate, with median area rather tumid.

Ochraceous to light yellowish brown; disc of frons sometimes a little darker, mesonotum castaneous to fuscous, with carinae light yellowish brown, abdominal

sternites fuscous, pale along posterior margin. Tegmina sordid white to pallid ochraceous, apical margin slightly infumed

Anal segment of male short, scarcely longer than tenth segment, a pair of broad transverse lobes apically, directed ventrad, each tapering distad and acuminate at apex. Pygofer short dorsally, longer ventrally; lateral margins excavate almost rectangulately near middle, a horizontal transverse strut just above aedeagus. Aedeagus short, broader than deep dorsoventrally, a sub-



Figs. 131–139. *Anigrus nudifrons* sp. n. 131 – head and pronotum, dorsal view; 132 – tegmen; 133 – male genitalia, left side; 134 – male genitalia, posterior view; 135 – aedeagus, posterior view; 136 – aedeagus, left side; 137 – left genital style, posteromesal view; 138 – apex of right genital style, posterolateral view; 139 – genital styles, posteroventrolateral view.

globular sclerite basally emitting a short membranous tube supported ventrally by a pair of spine-like sclerites; this tube underlain by membranous tissue extending mesad from a pair of semisclerotised subquadrate lobes situated on each side of aedeagus near its base. Genital styles sclerotised and pigmented in basal half, thence submembranous and abruptly bent dorsocaudad and twisted, slightly expanded apically in a setiferous lobe; a short thumb-like setiferous lobe on dorsal margin subapically.

Male: length, 2.8 mm.; tegmen, 4.1 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

Paratypes, 2 ♂, 5 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.).

This species is close to *A. formosanus* (MATS.) and differs from it in the absence of a median frontal carina. In *A. formosanus*, the mesonotum is uniformly fuscous and the entire margin of the tegmen, with the exception of that of the clavus, is also rather infuscate, most strongly so on the hind margin; in *A. nudifrons*, the mesonotum is not unicolorous and it is only a portion of the margin at the apex of the tegmen that is infuscate.

Anigrus sp. near *formosanus* (MATS.).

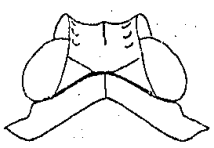
1 ♂, Viet-nam: Lao Kay, 1. V. 1960 (K. G.).

This species differs from *formosanus* in the strong curvature of the distal half of the frons, in the absence of a median ocellus, and in the meeting of the laterobasal facets of the vertex in the middle line.

Anigrus metalces **sp. n.** (Figs. 140–145).

Vertex with laterobasal facets not reaching to middle line; frons medially carinate, median ocellus present; postclypeus finely medially carinate, lateral margins basally confluent uninterruptedly with those of frons. Tegmina with vein M_{3+4} not forking apically.

Light yellowish brown; intercarinal areas of frons slightly darker, especially distally; mesonotum castaneous, with median carina lighter. Tegmina hyaline, sordid white, veins dull yellowish, granules of clavus smoky. Wings hyaline, powdered sordid white, veins fuscous.



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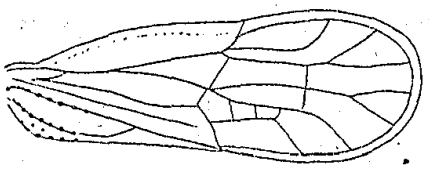

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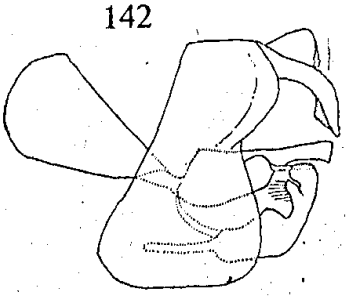

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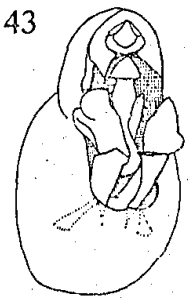

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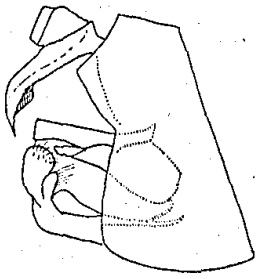


Figs. 140–145. *Anigrus metalces* sp. n. 140 – head and pronotum, dorsal view; 141 – tegmen; 142 – male genitalia, left side; 143 – male genitalia, posterolateral view; 144 – male genitalia, right side; 145 – genital style, right side.

Anal segment of male short, with lateral margins strongly produced ventrad, twisted, and truncate apically. Pygofer moderately long dorsally and distinctly longer ventrally, lateral margins obtusely angulately excavate near middle. Aedeagus moderately long, comprising a stout tubular process dorsally, directed caudad and flanked on each side basally by a submembranous inflated lobe that rapidly narrows caudad and extends beneath the tubular process; median plate for muscle attachment subtriangular, widest near apex. Genital styles rather narrow, inner margin in form of a narrow sclerotised and pigmented

rod widening distad and club-like apically, outer margin submembranou rectangulately bent dorsad in distal half and slightly expanded into a tran parent shortly setiferous rounded lobe at apex; a setiferous thumb-like lob on dorsal margin subapically.

Male: length, 2.2 mm.; tegmen, 3.5 mm. Female: length, 2.6 mm.; teg men, 4.2 mm.

Holotype ♂, Viet-nam: Nghe An district, Phu Quy, 17. VI. 1959 (B. P. & J. P.), in Inst. Zool. P.A.N.

Paratypes, 1 ♀ and 1 mutilated specimen. Viet-nam: Nghe An district Phu Quy, 17. VI. 1959; 2 ♀, Cuo-phuong province, Ninh Binh, 5. VI. 196 (R. B. & B. P.).

This species differs from *A. formosanus* (MATS.), *A. nigricans* (MATS.) and *A. frequens* (MATS.) in smaller bodily size.

Anigrus sp.

2 ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.).

In this species the median carina of the frons is absent, but the general appearance is close to that of *A. metalces*. A suffusion overlying the middle part of the distal half of the corium of the tegmen, and the apical veins are nfuscate. The length of the body is 1.8–2.0 mm. and that of the tegmen, 2.4 mm.

Genus ***Nisia*** MELICHAR

MELICHAR 1903: 53. Type species, *Meenoplus atrovenosus* LETHIERRY 1888: 466.

Nisia atrovenosa (LETHIERRY).

LETHIERRY 1888: 466.

A long series of both sexes, Viet-nam: Nghe An district, Phu Quy, 16. VI. 1959 (B. P. & J. P.); Co-loa, 20 km N.E. of Hanoi, 7, 9. V. 1966 (R. B. & B. P.); Mouong-Xen, 900 m., 24. XI. 1959 (K. G.); Hanoi, 16, 22. V. 1966 (R. B. & B. P.); 10 km. W. of Hanoi, 18, 25. V. 1966 (R. B. & B. P.); Yen-So, 10 km. S. of Hanoi, 18. V. 1966 (R. B. & B. P.); Cuo-phuong province, Ninh Binh, 8. VI. 1966 (R. B. & B. P.).

Genus ***Kermesia*** MELICHAR

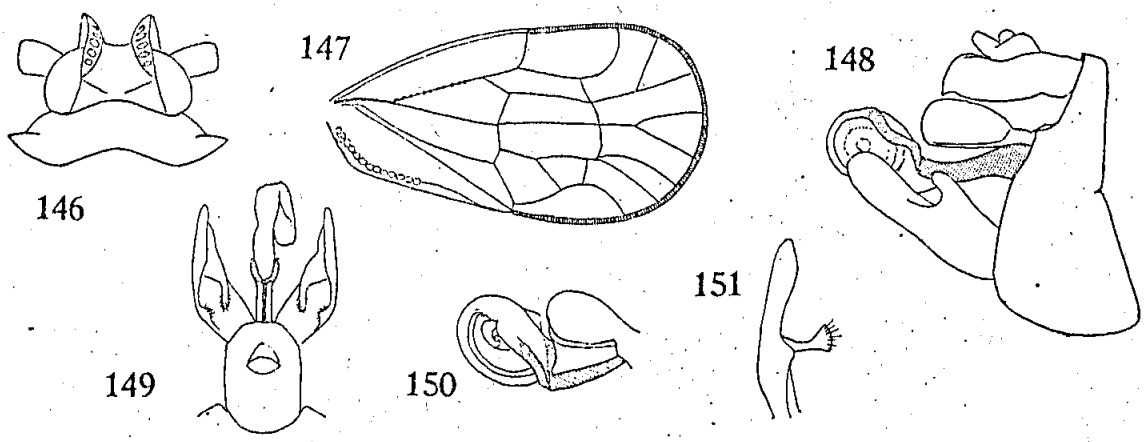
MELICHAR 1903: 52. Type species, *Kermesia albida* MELICHAR 1903: 53.

Kermesia nana **sp. n.** (Figs. 146–151).

Vertex with laterobasal areolets triangular, almost meeting in middle line but becoming obscure at this point; frons longer than broad (about 2.2 : 1), with lateral margins slightly sinuate; postclypeus ecarinate medially, laterally carinate basally with carinae uninterruptedly confluent with lateral carinae of frons, anteclypeus medially carinate. Post-tibiae with eight teeth apically, in groups of five and three, basal metatarsal segment with seven teeth apically, second segment with six teeth.

Pale stramineous, powdered white. Tegmina and wings milky hyaline, powdered, veins concolorous.

Anal segment of male moderately long, lateral margins broadly rounding into apical margin, which is shallowly convex. Pygofer short dorsally, long ventrally, lateral margins excavate in upper half. Aedeagus moderately long,



Figs. 146–151. *Kermesia nana* sp. n. 146 – head and pronotum, dorsal view; 147 – tegmen; 148 – male genitalia, right side; 149 – male genitalia, dorsal view; 150 – aedeagus, right side; 151 – right genital style, dorsolateral view.

tubular, directed caudad in basal third, and with a median vertical subovate lobe above it, then ascending dorsad in middle third, and finally strongly recurved ventrad and cephalad in a deep loop in distal third. Genital styles moderately long, in lateral view broad in basal half, abruptly narrowed at middle and continuing distad with upper and lower margins parallel, apex rounded; a finger-like process arising from mesal margin near middle, directed mesodorsad.

Male: length, 2.5 mm.; tegmen, 3.7 mm.

Holotype ♂, Viet-nam: Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.) in Inst. Zool. P.A.N.

This species is distinguished by the proportions of the frons and tegmen (which is 1.9 times longer than broad), by the shape and relative size of the laterobasal areolets of the vertex and by the structure of the male genitalia. It differs from *K. parva* MUIR in the greater length of the body.

The specific name is that of a nymph in classical mythology.

Family ***Derbidae*** SPINOLA

Genus ***Velkunta*** DISTANT

DISTANT 1906: 8. Type species: *Temesa tenella* MELICHAR 1903: 41.

Velkunta hyalina MUIR

MUIR 1913: 37.

Vertex broader between basal angles than long in middle line (1.5 : 1) and than wide at apex (about 1.4 : 1), apical margin convex; frons longer in middle line than broad at apex (2.4 : 1); ocelli present. Tegmina with anterior branch of M (M_{1+2}) uniting with R for a short distance at level of stigma.

A fuscous spot on both mesopleura and metapleura.

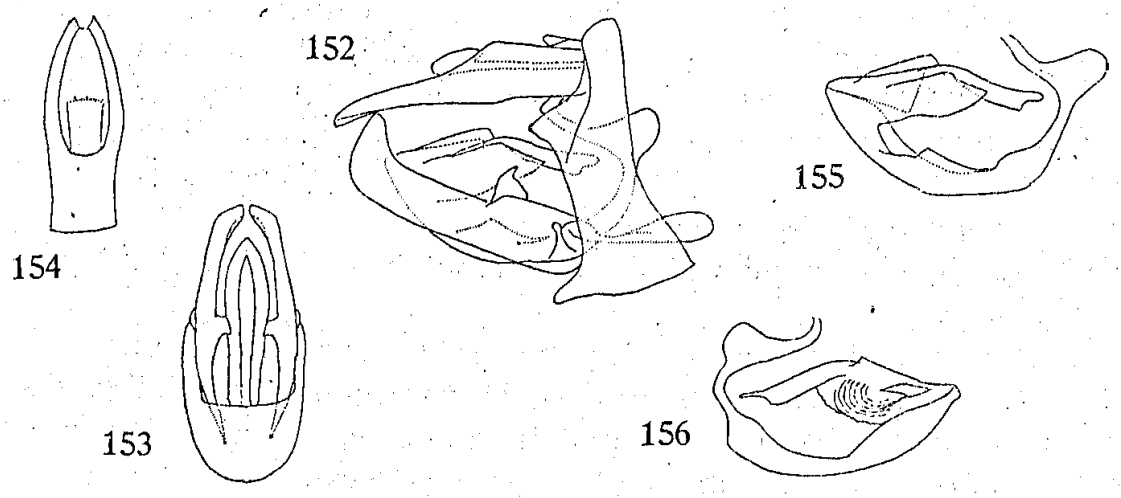
1 ♀, Viet-nam: Bao ha, Fan-si-Pan, 4–11. IV. 1962 (A. W.).

Genus *Lamenia* Stål

Stål 1859: 277. Type species, *Delphax caliginea* Stål 1854: 246.

***Lamenia sannatrix* sp. n.** (Figs. 152–156).

Vertex wider between basal angles than long in middle line (about 1.1 : 1) and than wide at apex (1.6 : 1), apical margin straight; frons longer in middle line than wide at apex (2.2 : 1); ocelli present, antennae with second segment swollen, subantennal process short, only half as long as antenna. Post-tibiae with seven teeth apically, basal metatarsal segment with four teeth, second segment with six teeth. Tegmina with $Sc+R$ united in a common stem with M basally for a distance equal to length of basal cell, M_{1+2} not fusing with R at level of stigma, a distinct $R-M$ transverse vein present at this level.



Figs. 152–156. *Lamenia sannatrix* sp. n. 152 – male genitalia, right side; 153 – male genitalia, ventral view; 154 – anal segment, dorsal view; 155 – aedeagus, right side; 156 – aedeagus, left side.

Golden yellow; sides of head above eyes, vertex, pronotum on disc, carinae and posterior margin, pallid stramineous; rostrum at apex, protarsi and mesotarsi, fuscous; no dark spots on pleurites. Tegmina milky hyaline, powdered white, veins almost concolorous, apical margin orange, apical cells of *Sc* and *R* faintly infuscate towards apical margin. Wings hyaline, powdered white, veins concolorous.

Anal segment of male about 2.5 times as long as broad, porrect caudad, lateral margins in dorsal view weakly convex, converging distally, apical margin apparently incised, though in fact shallowly concave with a thin membrane across apparent incision, anal style situated slightly basad of middle. Pygofer overlapping base of anal segment as a rounded lobe; dorsolateral angles shortly and subacutely produced caudad; lateral margins straight in dorsal half, weakly concave in ventral half, no medioventral process present on ventral margin. Aedeagus relatively long, shallowly curved upward distad, left dorsal margin entire, distally shallowly convex, right dorsal margin abruptly angulately excavate just beyond middle; flagellum long, reaching almost to base of aedeagus, with a relatively large inflated subovoid membranous lobe extending from right to left below flagellum and curving laterocephalad distally and narrowing into a short blade-like process; upper portion of flagellum narrow, slightly decurved at middle, widening slightly distad; apical margin oblique, with one apical angle more acute than the other. Genital styles long, in lateral view narrow, almost parallel-sided, abruptly bent dorsad distally and rounded apically, a short broad lobe, acuminate at its apex, arising dorsally at about two-fifths from base, an equally broad lobe on inner surface of style at the same level extending mesad; a minute finger-like lobe mesally on ventral margin of style near base.

Male: length, 3.0 mm.; tegmen, 4.1 mm.

Holotype ♂, Viet-nam: Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.), in Inst. Zool. P.A.N.

This species resembles *L. candida* FENNAH in coloration of the tegmina, but the two differ in coloration of the body, the relative length of the subantennal process and the detailed structure of the aedeagus and genital styles. It differs from *L. leucoptera* KIRKALDY and *L. pseudotypica* MUIR in the shape of the genital styles, and from *L. crocea* MUIR in the shape of the anal segment of the male.

Lamenia sp.

1 ♀, Viet-nam: Chiné near Hanoi, 24. VI. 1959 (B. P. & J. P.).

Genus *Cedusa* FOWLER

FOWLER 1904: 112. Type species, *Cedusa funesta* FOWLER 1904: 112.

Cedusa sp.

1 ♂, mutilated, Viet-nam: Thanh-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.)

Cedusa sp.

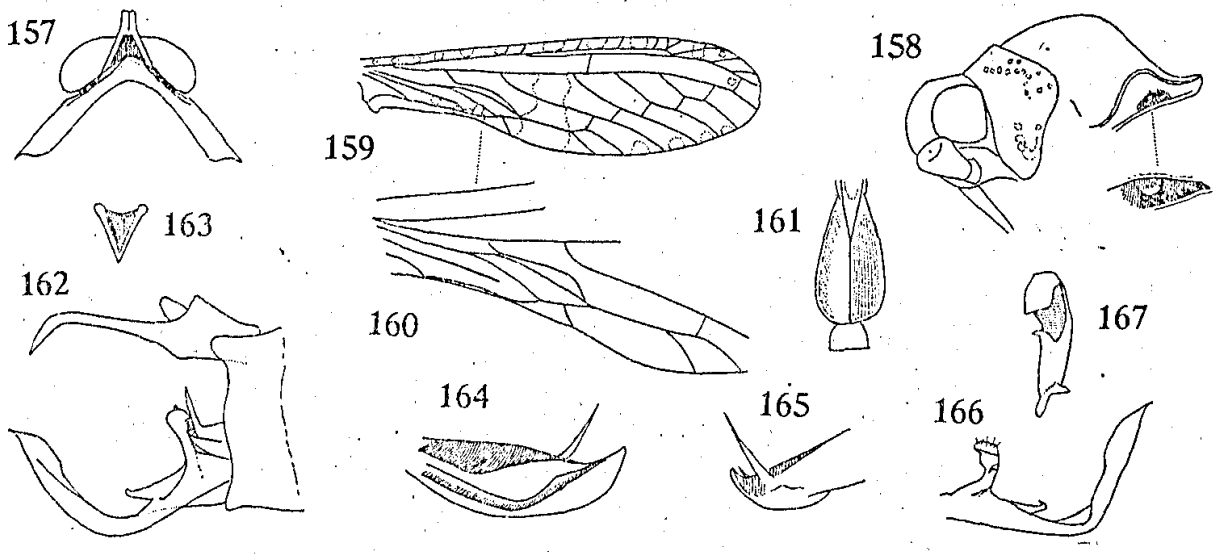
1 ♀, Viet-nam: Thanh-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.).

Genus *Proutista* Kirkaldy

Kirkaldy 1904: 279. Type species, *Derbe (Phenice) moesta* Westwood 1851: 209.

***Proutista monychus* sp. n.** (Figs. 157–167).

Vertex wider between basal angles than long in middle (about 1.7 : 1) and than wide at apex (2.2 : 1), anterior marginal carina distinct, lateral margins in side view horizontal, disc depressed, trapezoidal. Frons with lateral margins slightly separated in basal half, contiguous in distal half, in profile meeting vertex at an obtuse angle; ocelli situated rather close to anterior margin of genae, apparently non-functional; antennae with second segment longer than broad (about 2.5 : 1), widest at apex; clypeus tricarinate, a little inflated, with median carina more prominent than lateral carinae; rostrum not as long as clypeus, distinctly surpassing post-trochanters, in anterior view with lateral margins convex. Pronotum with lateral carinae of disc almost parallel to hind



Figs. 157–167. *Proutista monychus* sp. n. 157 – head and pronotum, dorsal view; 158 – head and thorax, left side; 159 – tegmen; 160 – venation of middle portion of tegmen; 161 – rostrum, anterior view; 162 – male genitalia, right; 163 – apex of anal segment posterior view; 164 – aedeagus, left side; 165 – apex of aedeagus, right side; 166 – left genital style, lateral view; 167 – left genital style, dorsal view.

margin; mesonotum with tegminal guide in form of a very small lunate horizontal ledge, distinct from ridges above and below it (fig. 158). Post-tibiae unarmed laterally, and with a single spine and a group of three apically, basal metatarsal segment without a mat of setae on lower surface and with five small teeth apically, second segment with five small teeth. Tegmina scarcely three times as long as broad, *Sc* giving off five veinlets to anterior margin, *R* with three branches, the last one forked, *M* with five sectors, the first very close

to and distally uniting with Cu_1, their common vein forking before margin. Wings about half as long as tegmina.

Dark yellowish brown; genae, except for two spots (one of them overlying ocellus), margins of vertex, median carina of pronotum and about nine round spots overlying lateral carina in each half, and a further four near outer margin of each lateral lobe, carinae and mesoscutellar margin of mesonotum, and spots on hind margin of abdominal terga, ochraceous; second segment of antennae and legs pallid stramineous, almost sordid white; anal segment of male and genital styles, orange red. Tegmina fuscous, a subtriangular area from posterior margin to cell M_3 (between second and third sectors of M) and a spot in each cell along anterior margin except in its basal third, at apex of tegmen, in four of the apical cells of M, two spots near claval suture distally and one at claval apex, hyaline; veins red. Wings fuscous, veins concolorous.

Anal segment of male elongate, evenly tapering distad, decurved in its apical fifth; anal foramen situated at two-fifths from base, dorsal surface distad of this sulcate, apex acute, spiniform; anal style small. Pygofer with dorsolateral angles each produced caudad in a short stout lobe; ventral margin of pygofer shallowly subangulately convex. Aedeagus bilaterally asymmetrical, moderately long, dorsal surface shallowly hollowed towards its right side; a long flattened process on left, arising near base and lying closely against aedeagus throughout its length, rather abruptly tapering to a point near apex, and not extending as far caudad as apex of aedeagus; a subspinose process, broad at its base and evenly tapering distad, arising on right in distal half, directed dorsocaudad. Genital styles long and narrow, rather abruptly bent upward at middle and a little swollen apically, and shortly acuminate at tip; two processes, basally united, arising on dorsal margin in basal quarter, one horizontal, directed caudad and inflected mesad distally in a short curved spine, the other vertical, with a short decurved spinose process on its outer margin near middle, and slightly expanded and rounded at apex in a setiferous lobe.

Male: length, 3.5 mm; tegmen, 6.0 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh-Binh, 7. VI. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

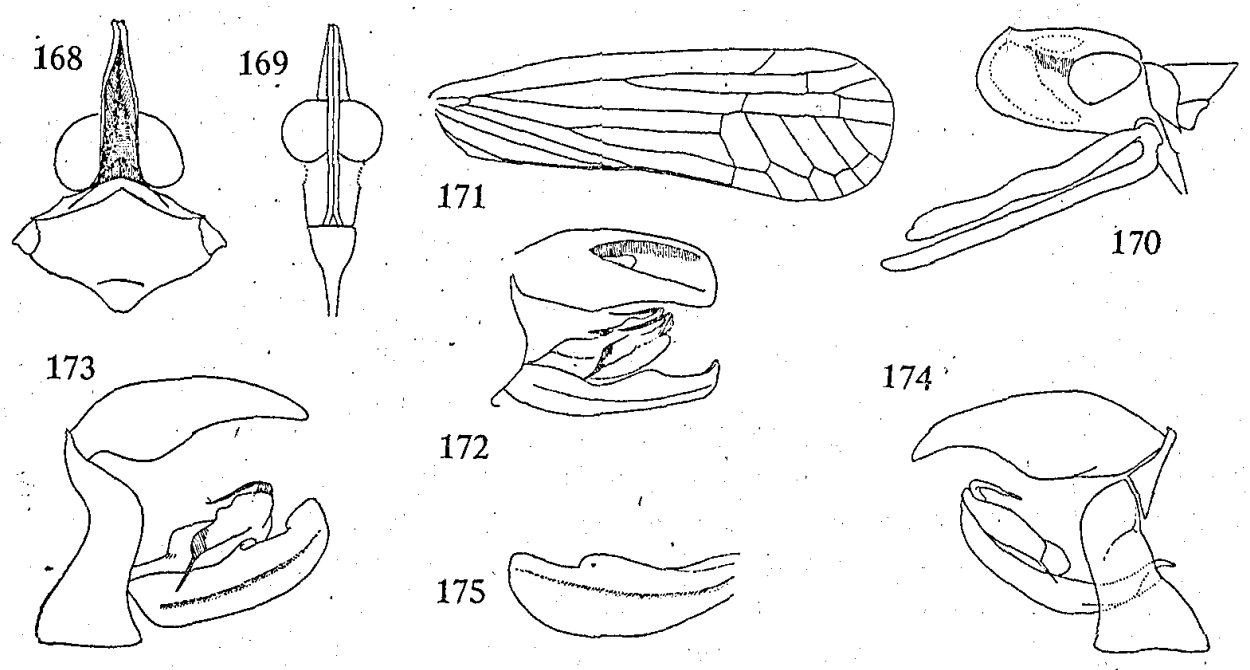
This species differs from others of the genus in the venation of the tegmen and in colour pattern. In the form of the male genitalia and in the laterally explanate rostrum it is nearest to *P. wilemani* MUIR, from which it differs in tegminal venation, colour pattern and structural details of the anal segment and genital styles, and the armature of the aedeagus. The writer has seen a female from Perak, Malaya (3,700–4,000 ft., Larut Hills, 10. II. 1932, H. M. PENDLEBURY) in the British Museum (Nat. Hist.), which has tegmina with similar fusion of the first median sector with *Cu* and a broadly similar coloration. It differs in its relatively shorter vertex, less explanate rostrum, and the presence of an extra fork beyond the most distal transverse veinlet in M. The female genitalia indicate an affinity with *Proutista* rather than with *Pamendanga*.

Genus *Vivaha* Distant

Distant 1906: 307. Type species, *Vivaha facialis* Distant 1906: 308.

***Vivaha leucocrocota* sp. n.** (Figs. 168–175).

Vertex longer to level of base of eyes than broad at base (about 4.0 : 1), in profile slightly upcurved apically to meet frons abruptly at an obtuse angle; frons with lateral margins contiguous throughout; clypeus with a median ridge, not a distinct carina; ocelli absent; antennae long, surpassing anterior margin of head by about a third of their length, each antenna with a cylindrical limb arising from base and surpassing main limb; third antennal segment arising subapically on upper surface. Post-tibiae laterally unarmed, apically with six small evenly-spaced teeth; basal metatarsal segment with four teeth apically, second segment with two teeth. Tegmina with clavus very narrowly open.



Figs. 168–175. *Vivaha leucocrocota* sp. n. 168 – head and thorax, dorsal view; 169 – head, anterior view; 170 – head and thorax, left side; 171 – tegmen; 172 – male genitalia, left side, dorsolateral view; 173 – male genitalia, left side; 174 – male genitalia, right side; 175 – genital style, ventrolateral view.

Pallid stramineous; a short horizontal band before eye, orange red; antennae apically slightly suffused with orange brown. Tegmina translucent, veins pallid stramineous.

Anal segment of male relatively large, shallowly curving downward distad, lateral margins shallowly sinuate, apical margin almost transverse, apical angles rounded, anal style short. Pygofer short dorsally, longer ventrally, lateral margins sinuate, dorsolateral angles not produced, ventral margin weakly convex. Aedeagus bilaterally symmetrical, slightly curved upward

distad, a pair of processes laterally at one-third from apex, each broad, directed ventrocephalad and abruptly narrowing into a slender spine; a pair of sinuate spinose processes arising at apex, abruptly reflected cephalad above aedeagus; dorsal surface of aedeagus near middle distinctly inflated. Genital styles moderately long, in side view with dorsal and ventral margins subparallel, a weak and shallow lobe dorsally at apex, slightly inflected, and a shallow eminence at middle of dorsal margin, with a minute sclerotised tooth at middle of its outer aspect.

Male: length, 4.0 mm.; tegmen, 6.0 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh-Binh, 7. VI. 1966 (R. B. & B. P.).

This species is distinguishable by the relatively great length of the antennae, much surpassing the apex of the head, and by the virtually uniform coloration. The head in profile is like that of *V. delicata* (WALKER), but in that species the antenna has no appendage. These two species also differ in tegminal coloration

Family *Achilidae* STÅL

Genus *Hamba* DISTANT

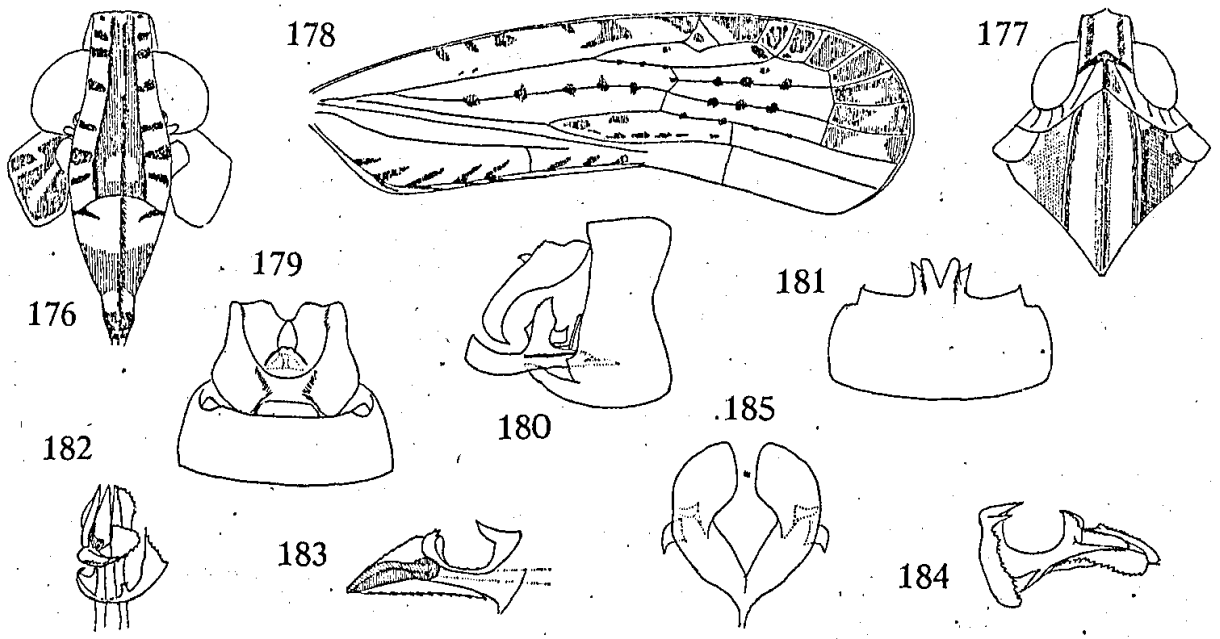
DISTANT 1907: 279. Type species, *Oixius perplexus* WALKER 1857: 147.

***Hamba seleucus* sp. n.** (Figs. 176–185).

Vertex wider between basal angles than long in middle (1.4 : 1) and than wide at apex (1.5 : 1), posterior margin angulately excavate, lateral margins straight, apical margin slightly produced, obtusely angulate at middle, disc deeply hollowed; frons longer in middle line than broad (1.8 : 1), wider at apex at base (about 1.7 : 1), basal margin transverse, lateral margins shallowly sinuate, produced laterocephalad, apical margin concave; median carina present; disc of frons depressed along middle; postclypeus tricarinate; rostrum surpassing post-trochanters, apical segment longer than subapical; antennae subglobose; ocelli large; eyes little longer than deep, only very slightly and narrowly emarginate below. Pronotum shorter in middle line than vertex (1 : 2) and than lateral carinae (1 : 2.5), anterior margin between lateral carinae shorter than distance between lateral carinae at posterior margin (1 : 3.5), two carinae present between eye and tegula and four areoles behind eye; mesonotum with median carina percurrent; post-tibiae with one spine laterally, seven apically, basal metatarsal segment and second segment each with six teeth.

Ochraceous; median portion of frons and six transverse bars adjoining each lateral margin, a short transverse bar in each half of postclypeus basally, postclypeus in distal half, anteclypeus, a transverse band on gena below eyes, genae before eyes, intercarinal areas of pronotum, a thin line bordering each

carina of mesonotum, and marbling in lateral fields, pro- and mesofemora except apically, two transverse suffusions on pro- and mesotibiae, pro- and mesotarsi, postfemora in distal half, abdomen and genitalia, fuscous. Tegmina ochraceous, marbling in costal cell, stigma, apical cells distally, a series of spots along all veins, the spots assuming a chevron-like form on posterior claval vein, fuscous. Wings fuscous, with veins darker.



Figs. 176–185. *Hamba seleucus* sp. n. 176 – head and lateral lobes of pronotum, anterior view; 177 – head and thorax, dorsal view; 178 – tegmen; 179 – anal segment of male and pygofer, dorsal view; 180 – male genitalia, right side; 181 – pygofer, ventral view; 182 – aedeagus, posterodorsal view; 183 – aedeagus, right side; 184 – aedeagus, left side; 185 – genital styles, ventral view.

Anal segment of male relatively large, broad, symmetrical, lateral margins strongly sinuate, apical angles acutely produced and strongly and abruptly deflexed. Pygofer moderately long, lateral margins almost straight, but abruptly rectangulate near junction with ventral margin; medioventral process comprising a pair of rather broad lobes, each with apical angles shortly produced, the exterior angle acuminate. Aedeagus asymmetrical, comprising a pair of phallic lobes that extend deeply into the abdomen and a phallobase made up of several thin lobes; these include a vertical collar-like lobe above base of aedeagus, extending caudad dorsally in a short acute process (fig. 184), and ventrad on left in a tapering lobe, denticulate on its outer margin (fig. 182), a short triangular acute lobe on right side (fig. 183), and a subacute rather inflated lobe distad of it; a lobe arising ventrally on right near apex of aedeagus, directed cephalad then tapering into a rather long stout spine directed mesocephalad below aedeegus (not visible in figs.); a broad membranous lobe arising ventrally near apex of aedeagus, coarsely serrate, extending on left side and slightly below aedeagus almost to its base (fig. 184); suspensorium

comprising a pair of stout, straight, slightly oblique rods. Genital styles with upper margin produced dorsad at middle in a rather long subtriangular lobe that is acute apically and excavate at middle of its anterior margin; ventral margin of style at base strongly produced in a long narrow subspinose process that curves mesad then dorsad.

Male: length, 4.5 mm.; tegmen, 5.8 mm.

Holotype ♂, Viet-nam: Bao-ha, S. of Fan-si-Pan, 4—11. IV. 1962 (A. W.).

Paratypes, 3 ♂ (one mutilated), Viet-nam, same data as holotype.

This species differs from *H. perplexa* (WALKER) and *H. inclinata* (WALKER) in the proportions of the vertex, which is relativley shorter than in the other species.

Genus *Faventilla* METCALF

METCALF 1948: 60. Type species, *Cixius pustulatus* WALKER 1857: 146.

Faventilla sp.

1 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 5. VI. 1966 (R. B. & B. P.).

This species differs from *F. diffinis* (WALKER), *F. guttifer* (WALKER), *F. guttulata* STÅL and *F. pustulata* (WALKER) in the deeper curvature of the costal vein of the tegmen and the wider costal cell, from the last three in the absence of a dark spot on the lateral lobes of the pronotum and from the first in the proportions of the frons. From *F. flava* MUIR it differs markedly in coloration.

Genus *Usana* DISTANT

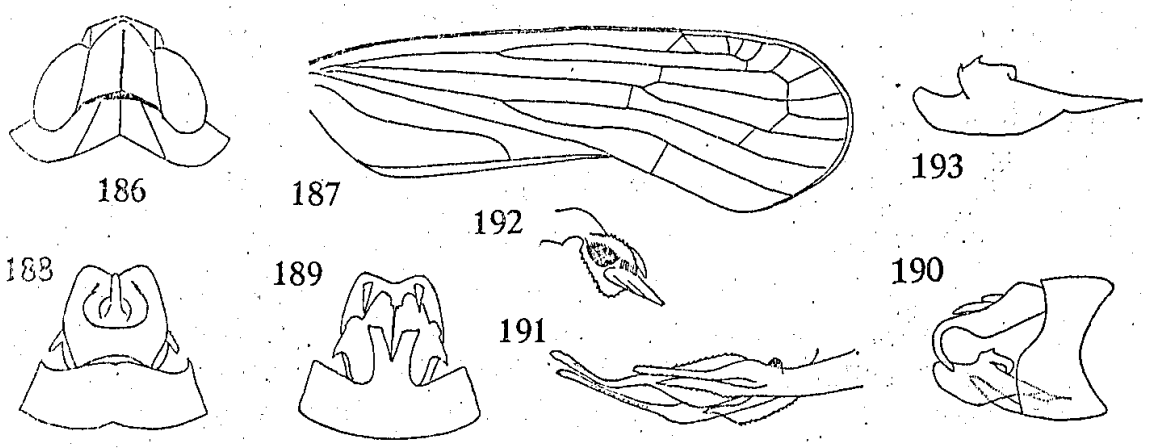
DISTANT 1906: 392. Type species, *Usana lineolalis* DISTANT 1906: 293.

As both genera occur in South-East Asia, it is worth noting some of the differences between *Usana* and *Ballomarius*, the condition in the latter being shown in brackets: $Sc+R$ and Cu_1 in tegmen forking at about one third (one quarter) from base; *Sc* forked widely at stigma, with its lower branch curved (*Sc* equidistant between *C* and *R* throughout, not at all sinuate distally); M_{1+2} fork at level of apical line of transverse veins (M_{1+2} fork basad of apical line of transverse veins).

Usana democharis sp. n. (Figs. 186–193).

Vertex wider between basal angles than long in middle (1.2 : 1) and than wide at narrowest part (1.4 : 1), posterior margin broadly angulately excavate, lateral margins straight, apical margin convex, an obscure triangular areolet present on each side apically, disc only very shallowly depressed; frons longer

in middle line than broad (1.3 : 1), wider at apex than at base (nearly 1.6 : 1), basal margin transverse, lateral margins almost straight, produced laterad, apical margin concave, median carina present, disc shallowly hollowed between this carina and lateral margins; postclypeus tricarinate; rostrum attaining post-coxae; antennae subglobose; ocelli large; eyes markedly longer than deep, and broadly emarginate below. Pronotum shorter in middle line than vertex (almost 1 : 2) and than lateral carinae (1 : 1.9), anterior margin between lateral carinae shorter than distance between lateral carinae at posterior margin (1 : 2.4), a very weak carina between eye and tegula, no areoles behind eye; mesonotum with median carina absent from scutellum. Post-tibiae with one spine laterally, seven apically, basal metatarsal segment and second segment each with six teeth.



Figs. 186–193. *Usana democharis* sp. n. 186 – head and pronotum, dorsal view; 187 – tegmen; 188 – anal segment and pygofer, dorsal view; 189 – male genitalia, ventral view 190 – male genitalia, right side; 191 – aedeagus, right side, anterodorsolateral view 192 – aedeagus, left lobe, posterodorsal view; 193 – genital style, right side.

Light yellowish brown; a spot before eye, a spot below antenna and a spot in lateral lobe of pronotum, piceous; thoracic pleurites ochraceous. Tegmina translucent, almost uniformly light yellowish brown, veins concolorous for most of length, tinged red distally, apical margin red. Wings dilute dark grey, veins darker, apical margin red.

Anal segment of male relatively large, broad, symmetrical, lateral margins strongly sinuate, lateroapical angles strongly and rather narrowly produced and deflexed, acuminate distally. Pygofer rather long, lateral margins in side view sinuate; medioventral process comprising a pair of rectangular lobes, each more than twice as long as broad, and with inner apical angle obtuse, outer apical angle acute. Aedeagus symmetrical, with a pair of long rod-like phallic processes, each distally sinuate and microdenticulate on lower half,

the edge of the microdenticulate area demarcated by a row of slightly larger teeth; phallobase with a slightly unequal pair of moderately long trifid lobes laterally, the upper lobe of each shorter than the lower and serrate along its dorsal margin (fig. 192) the lower slightly expanded laterad in its basal two-thirds and serrate on its lateral margin, between these upper and lower lobes, a horizontal triangular lobe tapering distad, with smooth edges. Suspensorium consisting of partial sclerotisation of the membrane in a band extending horizontally from side of pygofer to base of aedeagus on each side. Genital styles moderately broad, shallowly curved, a large tricuspidate process on dorsal margin, ventral margin at base produced mesodorsad in a fine sinuate cylindrical process.

Male: length, 4.1 mm.; tegmen, 5.5 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

This species differs from *U. abdominalis* DISTANT and *U. lineolalis* DISTANT in the proportions of the vertex and in coloration.

Genus *Tangina* MELICHAR

MELICHAR 1903: 44. Type species, *Tangina bipunctata* MELICHAR.

Tangina bipunctata MELICHAR.

MELICHAR 1903: 223.

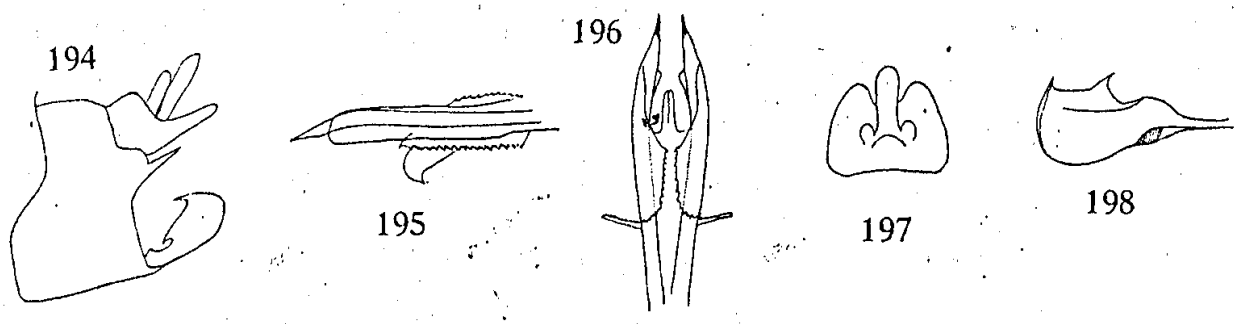
Tangina bipunctata hypenor subsp. n. (Figs. 194–198).

Vertex wider between basal angles than long in middle (1.2 : 1) and than wide at narrowest part (1.3 : 1), posterior margin shallowly concave, lateral margins concave, apical margin obtusely angulate at middle, disc not depressed; frons longer in middle line than broad (1.1 : 1), wider at apex than at base (nearly 1.8 : 1), basal margin transverse, lateral margins diverging distad almost to apex, then incurved, apical margin shallowly concave; median carina present; disc of frons not depressed, in profile slightly convex in basal half; postclypeus tricarinate; rostrum not attaining post-coxae; ocelli distinct, touching eyes; eyes reniform, broadly and shallowly excavate below. Pronotum shorter in middle line than vertex (1 : 1.6), and than lateral carinae (1 : 1.5), anterior margin between lateral carinae shorter than distance between lateral carinae at posterior margin (1 : 3.5), no carina between eye and tegula and no areoles behind eye; mesonotum with median carina absent from scutellum. Post-tibiae with a spine laterally, eight apically, basal metatarsal segment with seven teeth, second segment with five.

Pallid stramineous; intercarinal areas of frons basally (in female), rostrum apically, sides of head before and above eyes, and a spot on mesopleura, dark

fuscous or piceous; pronotum behind eyes and lateral fields of mesonotum, dilute light reddish brown. Tegmina milky hyaline, a more or less distinct suffusion along middle of tegmen from base to apex, light brown; a fine V-shaped mark at stigma, apical cells of *Sc* and *R* infuscate at margin. Wings white, veins concolorous.

Anal segment of male not large, rather short, symmetrical, slightly narrowing distad, apical angles feebly produced, bluntly rounded. Pygofer rather long, dorsolateral angles produced mesocaudad in a narrowly triangular lobe, spiniform in lateral view; below this, lateral margins straight; medioventral process comprising a pair of rather broad lobes, each narrowing distad and rounding at apex. Aedeagus symmetrical, comprising a pair of long narrow phallic lobes, each tapering to a point apically and minutely denticulate at



Figs. 194–198. *Tangina bipunctata hypenor* subsp. n. 194 — male genitalia, left side; 195 — aedeagus, right side; 196 — aedeagus, dorsal view; 197 — anal segment of male, dorsal view; 198 — right genital style, ventral view.

apex; phallobase comprising a median lobe, acuminate at its apex, that extends ventrad (fig. 195) and a pair of lateral lobes, each narrowly rounded apically, widening basad and serrate on their upper and lower margins in basal half Genital styles each narrow basally, widening distad, apical margin broadly rounded, apical angle produced in a short spine; a slightly larger spine, directed cephalad, near middle of dorsal margin.

Male: length, 2.7 mm.; tegmen, 3.7 mm. Female: length 2.8 mm; tegmen, 3.8 mm.

Holotype ♂ of subspecies, Viet-nam: Than-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

Paratype ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.).

This subspecies differs from the typical population in tegminal marking: in Ceylon, members of this species have an oblique fuscous line across the costal cell at its apex as well as the V-shaped mark in the stigma, and there is a distinct fuscous rounded spot in the first apical cell; in the subspecies *hypenor*, there is no dark band in the costal cell, and the dark mark in the first apical cell takes the form of a band lying along the anterior margin of the cell.

Family ***Dictyopharidae*** SPINOLA

Genus ***Tropidophara*** BIERMAN

BIERMAN 1910: 15. Type species, *Tropidophara dubiata* BIERMAN 1910: 16.

Tropidophara javana (LETHIERRY).

Dictyophara javana LETHIERRY 1888: 467.

1 ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 11. VI. 1966 (R. B. & B. P.).

Tropidophara sp.

1 ♀, Viet-nam: Cuo-phuong province. Ninh Binh, 11. VI. 1966 (R. B. & B. P.).

In this species the vertex is longer than broad at base (2.7:1), abruptly narrowed distad of the eyes, and with the lateral margins shallowly convex, meeting in a point apically; the median carina is distinct in the basal third. The profemur has a subapical tooth, the post-tibia has five spines laterally, eight apically, the basal matatarsal segment, nine teeth apically, and the second segment, ten.

Genus ***Zedochir***, novum

Head with eyes fitting closely against pronotum, produced anteriorly in a long cephalic process; cephalic process more or less slender, straight, slightly ascending distad, in profile of equal width throughout. Frons widest at apex; rostrum with subapical segment distinctly longer than apical segment. Pronotum with median carina distinct, lateral discal carinae absent, two carinae between eye and tegula; mesonotum tricarinate, carinae parallel; mesopleural carina straight for most of length, curved upward only at anterior end; post-coxal process acuminate; post-tibiae with four spines laterally, seven apically, basal and second metatarsal segments each with about 22 teeth. Tegmina longer than broad (nearly 4 : 1), of even width throughout, membrane occupying two-fifths of total length; stigma elongate, not wider than costal cell, its inner margin (vein *Sc*) straight or nearly so, continuing in same line as *Sc*+*R*; transverse veinlets regular, relatively sparse. Genital styles of male in side view evenly convex, lateral process situated distinctly basad of dorsal process.

Type species, *Fulgora linieata* DONOVAN 1800: 1, Pl. 8, fig. 1.

Zedochir differs from *Hasta* in the cephalic process being more slender and somewhat ascending, and in the absence of lateral carinae on the disc of the pronotum; from *Thanotodictya*, including *Niculda* and *Lucinda*, it differs in the proportions of the genital style of the male, in the relatively much shorter apical margin of the anal segment in the female, and in the presence of a distinct triangular lobe dorsoapically on the third valvulae of the ovipositor.

The generic name is an arbitrary combination of letters and is regarded as masculine.

Zedochir fuscovittatus (STÅL).

Pseudophana fuscovittata STÅL 1859: 271.

1 ♂, Viet-nam: Nghe An district, Phu Quy, 16. VI. 1959 (B. P. & J. P.).

Genus ***Doryphorina*** MELICHAR

MELICHAR 1912: 99. Type species, *Doryphorina stali* MELICHAR.

Doryphorina stali MELICHAR.

MELICHAR 1912: 100.

***Doryphorina stali minor* subsp. n.**

Lateral fields of frons at apex of head piceous, with 8–9 small pallid pustules; vertex with cephalic process slightly hollowed longitudinally, in profile straight, ascending uniformly, longer than broad between basal angles (6 : 1).

Male: length, 13 mm.; tegmen, 10.0 mm. Female: length, 16.0 mm.; tegmen, 12.1 mm.

Holotype ♂ of subspecies, Viet-nam: Cuo-phuong province, Ninh Binh, 5. VI. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

Paratype, 1 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 6. VI. 1966 (R. B. & B. P.).

Other material: 1 ♀, Viet-nam: Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.).

This subspecies is distinguished from the typical population by the markedly smaller body size of its members.

***Doryphorina stali subdeflexa* subsp. n.**

Lateral fields of frons at apex of head light brown, without pallid spots; vertex with cephalic process not hollowed longitudinally, and even slightly transversely convex; sides of process a little inflated; process slightly ascending distad in basal two-thirds, then upper margin becoming horizontal in distal third, imparting a slightly decurved appearance to the process; process longer in middle line than broad at base (7 : 1).

Female: length, 14.0 mm.; tegmen, 10.0 mm.

Holotype ♀ of subspecies, Viet-nam: Thanh-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

Paratype, 1 ♀, Viet-nam: Thanh-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.).

The form of the head is characteristic of this subspecies, but it is also distinguished by the relatively uniform light greenish-brown coloration of the vertex and thorax.

Genus ***Raivuna***, novum

Head, including eyes, fitting closely against pronotum, and produced anteriorly in a cephalic process that is porrect, about 4.5–6.0 times as long as broad at base, and in side view tapers distad; sides of head not inflated; rostrum reaching post-trochanters. Pronotum with median carina distinct, lateral discal carinae absent, or at most present only anteriorly, two carinae between eye and tegula, and a carina extending obliquely across lateral lobe for about two-thirds of its length; posterior margin concave, not angulately so; mesonotum as broad as long, transversely moderately convex, tricarinate, with lateral carinae straight, parallel or very slightly converging distad, lower mesosternal carina distinctly curved near pronotum; profemora distally unarmed and not at all expanded at lower apical angle; post-coxal process acuminate; post-tibiae with four spines laterally (infrequently five), seven apically; basal metatarsal segment and second segment each with about 16–22 teeth apically. Tegmina 8.5–10 mm., longer than broad (3 : 1), *Sc* distinctly sinuate distad of *Sc*+*R* fork, stigma with 3–5 cells, venation regular, transverse veinlets relatively sparse (12–16), posterior claval vein distinctly shorter than common claval vein. Pregenital sternite of female not depressed or hollowed out medially, posterior margin transverse.

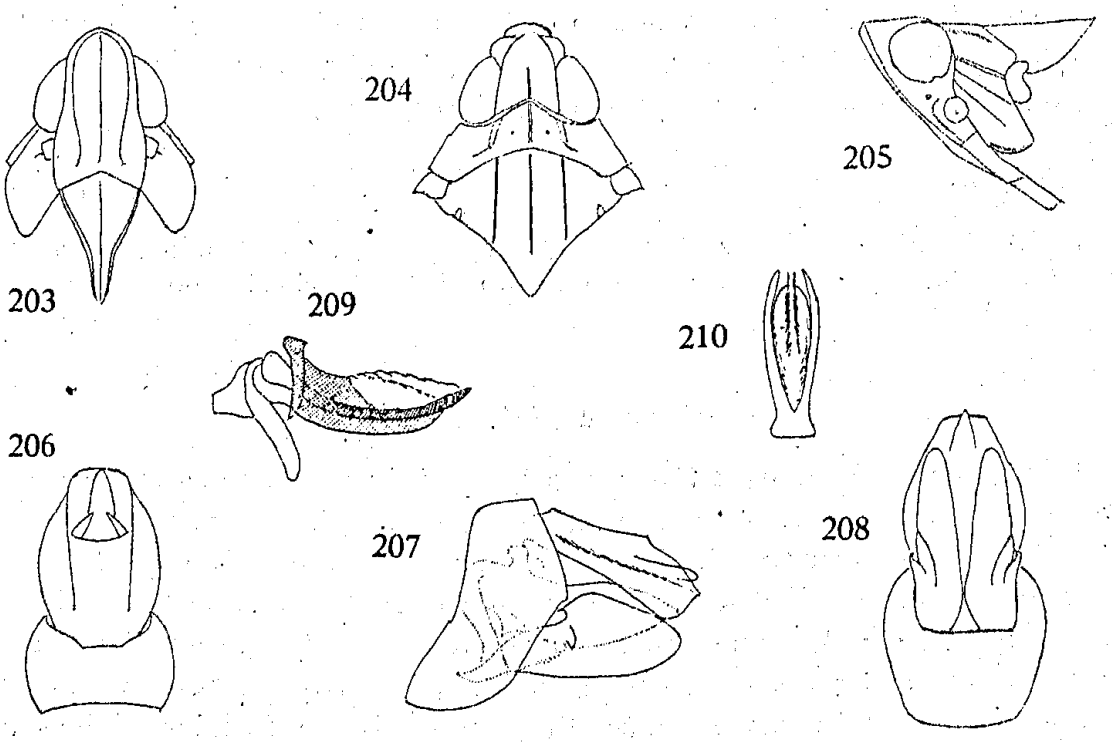
Type species, *Raivuna micida* sp. n.

This genus differs from *Dictyophara* and *Chanithus* in the absence of lateral discal carinae on the pronotum, the more strongly transversely convex mesonotum, the greater number of teeth on both the basal and second metatarsal segments and, in the tegmen, in the presence of a stigma that is wider than the costal cell, the relatively greater length of the common claval vein in relation to that of the posterior claval vein measured from its point of separation from the humeral margin to the union of the claval veins, and the regularity of the venation of the membrane. From *Doryphorina*, it differs in the distally-tapering profile of the cephalic process, in the anterior curvature of the lower mesosternal carina, and in the relatively fewer transverse veinlets in the tegminal membrane, as well as in the absence of broad infuscation over these veinlets. Moreover, in *Doryphorina*, the inner surface of the genital style of the male bears a relatively compact tuft of setae that does not extend to the basal angles of the lower margin, whereas in *Raivuna*, the entire lower half of the basal third of the inner surface is setose, and the setae extend to the basal angles. In *Avephora*, the cephalic process is much shorter than in *Raivuna*, the margins of the frons are more strongly convex below the level of the antennae, and the clypeus is distinctly tumid; the mesonotum is broader than long; the setae on the inner surface of the genital style are confined to a small compact tuft at the apex of an eminence, and the pregenital sternite of the female is angulately excavate posteriorly.

The generic name is an arbitrary combination of letters and is regarded as feminine.

***Indrival nerinus* sp. n.** (Figs. 203–210).

Vertex horizontal, lateral margins converging distad, incurved before eyes but not quite meeting at apex; frons longer than broad (1.5 : 1), widest just below level of antennae. Pronotum with ratio of concavity 4 : 1; mesonotum broader than long (1.1 : 1). Tegmina with costal margin very slightly convex; 16–18 apical cells; common claval vein longer than posterior claval vein to its junction with humeral margin (nearly 1.1 : 1).



Figs. 203–210. *Indrival nerinus* gen. et sp. n. 203 – head and lateral lobes of pronotum, anterior view; 204 – head and thorax, dorsal view; 205 – head and thorax, left side; 206 – anal segment of male, dorsal view; 207 – male genitalia, left side; 208 – male genitalia, ventral view; 209 – aedeagus, left side; 210 – aedeagus, ventral view.

Orange brown; intercarinal area of frons reddish brown, all carinae of head and thorax, including positions of absent lateral discal carinae of pronotum, abdominal terga and posterior half of sternites, and male genitalia, green. Fore and middle legs greenish brown with longitudinal fuscous stripes, hind legs grenn, brown distally on tibiae and post-tarsi; genital styles and anal segment apically, fuscous. Tegmina hyaline, with veins green on corium, fuscous in membrane. Wings hyaline, veins fuscous.

Anal segment of male longer than broad (1.5 : 1), widest at middle. Pygofer with dorsolateral angles slightly produced, obtuse but abruptly angulate. Aedeagus tubular, moderately elongate, pigmented portion of phallobase relatively short dorsally, long laterally and very short ventrally, the paired membranous lobes each furnished ventrally with a row of about six long spines, which are directed caudad when in repose.

Male: Length, 7.5 mm.; tegmen, 8.0 mm.

Holotype. ♂, Viet-nam: Nghe An district, Phu Quy, 17. VI. 1959 (B. P. & J. P.) in Inst Zool. P.A.N.

Genus ***Orthopagus*** UHLER

UHLER 1896: 278. Type species, *Orthopagus lunulifer* UHLER 1896: 279.

Orthopagus helios MELICHAR.

MELICHAR 1912: 60.

10 ♂, 7 ♀, Viet-nam: Chiné near Hanoi, 24. VI. 1959 (B. P. & J. P.); Lao Kay, 31. V. 1960 (K. G.); Thanh-ha province, Hoa Binh, 12, 13. VI. 1966 (R. B. & B. P.); Nghe An district, Phu Quy, 17. VI. 1959 (B. P. & J. P.); Cuo-phuong province, Ninh Binh, 5, 7, 8. VI. 1966 (R. B. & B. P.).

Family ***Fulgoridae*** LATREILLE

Genus ***Pyrops*** SPINOLA

SPINOLA 1839: 231. Type species, *Cicada candelaria* LINNAEUS 1758: 434.

Pyrops spinolae (WESTWOOD).

Fulgora (*Pyrops*) *spinolae* WESTWOOD 1842: 118.

3 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 11. VI. 1966; Hoa Binh, 12. V. 1966 (R. B. & B. P.).

Genus ***Penthicodes*** BLANCHARD

BLANCHARD 1845. Type species, *Aphaena discolor* GUÉRIN-MÉNEVILLE 1834: 452.

Penthicodes variegatus (GUÉRIN-MÉNEVILLE).

Aphaena variegata GUÉRIN-MÉNEVILLE 1834: 455.

12 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 4, 6, 7. VI. 1966 (R. B. & B. P.).

Genus ***Aphaena*** (GUÉRIN-MÉNEVILLE)

GUÉRIN-MÉNEVILLE 1834. Type species, *Aphaena discolor* GUÉRIN-MÉNEVILLE.

Aphaena nigrotibiata (SCHMIDT).

Euphria nigrotibiata SCHMIDT 1906: 189.

1 ♂, Viet-nam: Gio-Linh, 20–26. IX. 1960 (K. G.).

Family *Tropiduchidae* Stål

Genus *Neommatissus* Muir

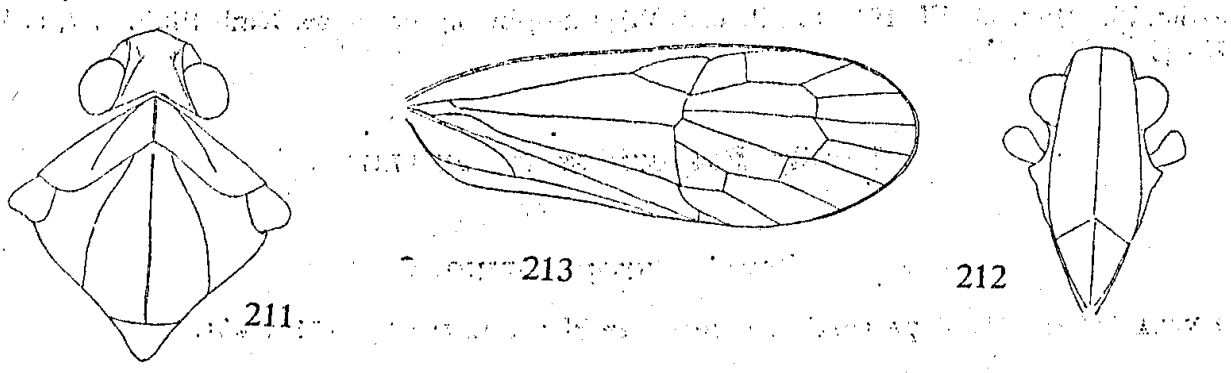
Muir 1913: 267. Type species, *Neommatissus spurcus* Muir 1913: 268.

Neomatissus jacobsoni (Melichar).

Trobolophya jacobsoni Melichar 1914: 94.

***Neomatissus jacobsoni tonkinensis* subsp. n.** (Figs. 211–213).

Vertex wider between basal angles than long in middle (1.3 : 1), and than at apex (1.4 : 1), in profile subrectangulate, not acute, lateral margins not strongly elevated by the standards of this genus; clypeus in profile continuing line of frons.



Figs. 211–213. *Neommatissus jacobsoni tonkinensis* subsp. n. 211 — head and thorax, dorsal view; 212 — frons and clypeus, anterior view; 213 — tegmen.

Green; a moderately large round spot on side of head apically, a narrow line along posterior edge of lateral margin of vertex, piceous; tegmina hyaline, veins light yellowish brown.

Female: length, 3.9 mm.; tegmen, 5.0 mm.

Holotype ♀ of subspecies, Viet-nam: 10 km W of Hanoi, 25. V. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

In Baker's key this specimen runs to couplet b[1], but differs from the three species to which it leads (*penangensis* Baker, *jacobsoni* Melichar and *montana* Baker) in its relatively shorter vertex. It differs from *typicus* Distant also in the proportions of the vertex (the corresponding ratios in the latter being 1.1 : 1 and 1.8 : 1). Until the male genitalia in these geographically close populations can be compared there must be some uncertainty about their taxonomic status.

Genus *Catullia* Stål

Stål 1870: 748. Type species, *Catullia subtestacea* Stål.

Catullia subtestacea Stål.

Stål 1870: 749.

29 ♂, 23 ♀, Viet-nam: Thanh Ha province, Hoa Binh, 12–14. VI. 1966 (R. B. & B. P.); Cuo Phuong Province, Ninh Binh, 5, 7 and 8. VI. 1966 (R. B. & B. P.); Chiné near Hanoi, 24. VI. 1959 (B. P. & J. P.).

Gents ***Kallitaxila*** KIRKALDY

KIRKALDY 1901: 6. Type species, *Taxila granulata* STÅL.

Kallitaxila granulata (STÅL).

2 ♂, 3 ♀, Thanh Ha Province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.); Co-loa, 20 km. NE of Hanoi. 10. V. 1966 (R. B. & B. P.).

Genus ***Ossoides*** BIERMAN

BIERMAN 1910: 26. Type species, *Ossoides lineatus* BIERMAN 1910: 27.

Ossoides lineatus BIERMAN.

BIERMAN 1910: 27.

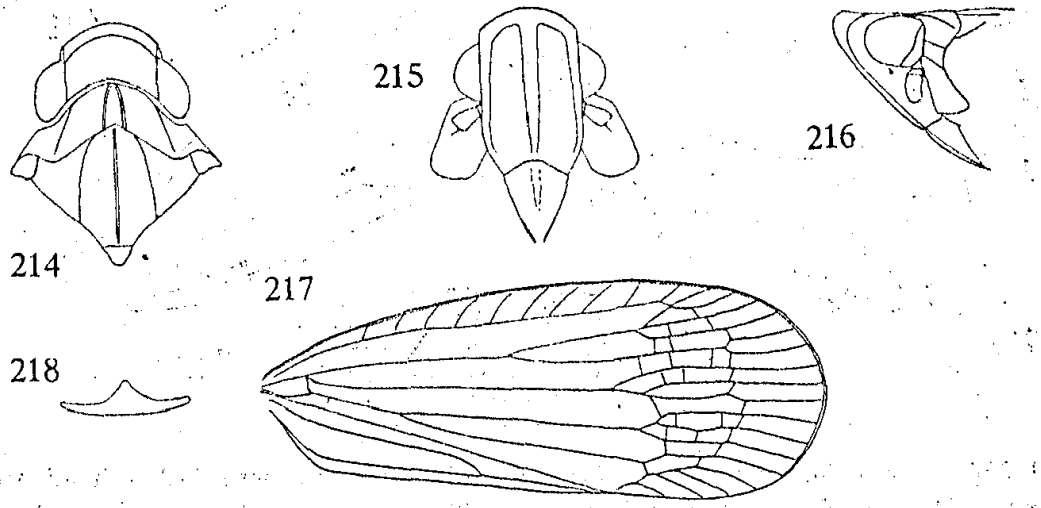
2 ♀, Viet-nam: Lao Kay, 23–25. V. 1966 (K. G.).

Genus ***Epora*** WALKER

WALKER 1857: 145. Type species, *Epora subtilis* WALKER 1857: 146.

Epora callosa sp. n. (Figs. 214–218).

Vertex broader than long in middle (1.7 : 1, including thickness of apical callus; 2.0 : 1, excluding it), anterior margin and base of frons meeting in a broad callus; posterior margin carinate, disc with a median sulcus. Pronotum with a pair of submedian carinae, two carinae on each side between eye and tegula. Tegulae carinate. Tegmina with apical margin shallowly convex, not at all oblique; eleven rows of subapical cells, most of which are transversed by 1–3 transverse veinlets, and seventeen rows of apical cells. Post-tibiae with three spines laterally, six apically, basal metatarsal segment with five teeth.



Figs. 214–218. *Epora callosa* sp. n. 214 — head and thorax, dorsal view; 215 — head and lateral lobes of pronotum, anterior view; 216 — head and pronotum, left; 271 — tegmen, 218 — seventh sternite of female, ventral view.

Green; a small spot on each side of abdomen dorsoapically, black. Tegmina greenish-hyaline, veins green. Wings milky-hyaline, veins green.

Pregenital sternite of female produced caudad in a relatively large subangulate lobe. Third valvulae of ovipositor each armed distally with ten stout spines.

Female: length, 5.7 mm.; tegmen, 7.4 mm.

Holotype ♀, Viet-nam: Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.) in Inst. Zool. P.A.N.

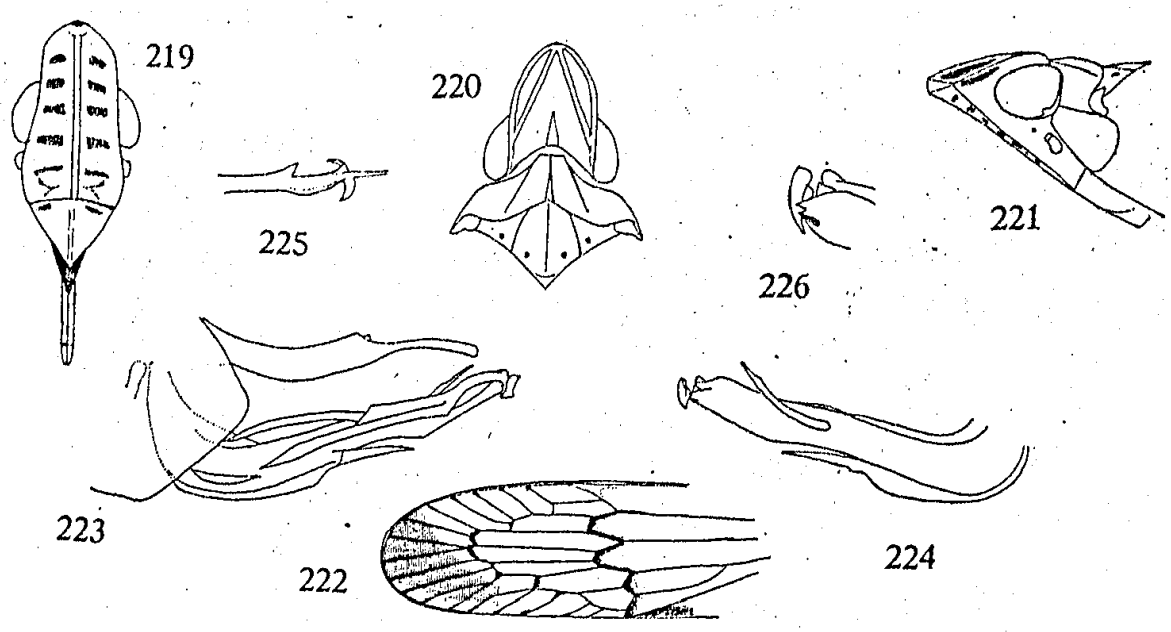
This species differs from *E. subtilis* WALKER (the type of which is a male) and *E. montana* DISTANT in the presence of a broad callus between vertex and frons and of supernumerary transverse veinlets in the subapical cells of the tegmen. It also differs from the former in the evenly-rounded apical margin of the tegmen, and from the latter in the structure of the female genitalia: in *montana*, the hind margin of the pregenital sternite is transverse, and the third valvulae are each armed with only six spines.

Genus *Sogana* MATSUMURA

MATSUMURA 1914: 268. Type species, *Sogana hopponis* MATSUMURA 1914: 268.

***Sogana longiceps* sp. n.** (Figs. 219–226).

Vertex longer in middle line than wide at anterior margin of eyes (nearly 1.2 : 1), and as long as oblique sublateral carina, lateral margins curving to meet at apex of head, posterior margin rather shallowly concave; median carina absent, but a pair of submedian carinae basally, each uniting with carinate posterior margin. Mesonotum broader than long in middle (1.4 : 1).



Figs. 219–226. *Sogana longiceps* sp. n. 219 – head, anterior view; 220 – head and thorax, dorsal view; 221 – head and thorax, left side; 222 – tegmen; 223 – anal segment, pygofer and aedeagus, left side; 224 – aedeagus, right side; 225 – upper margin of genital style, dorsomesal view; 226 – apex of aedeagus, right side.

Ochraceous-green; frons with six red transverse bars, interrupted medially; intercarinal areas of vertex and disc of pronotum, a suffusion medially anteriorly on mesonotum, four spots near basal margins and a transverse band across base of mesoscutellum, a spot at apex of head, clypeus laterally, suffusions on meso- and metapleura, a diffuse ring near apex of pro- and mesofemora and at base of all tibiae, and incomplete stripes on postfemora, fuscous; lateral margins and oblique carinae of vertex, dull orange red. Tegmina milky-hyaline, a suffusion in costal cell basally, all transverse veinlets, a suffusion in posterior half of membrane apically, and small marks at base, middle and apex of clavus, fuscous. Wings hyaline, with veins and a suffusion in *Cu* underlying apex of clavus, fuscous.

Anal segment of male elongate, narrow, parallel-sided, dorsally sulcate in distal half, apically transverse-convex, anal style at middle. Pygofer with dorsolateral angles produced, obtusely angulate. Aedeagus long, its ventral lobe polished, abruptly expanded into a subcircular plate apically, microdenticulate along its less deeply rounded edge; apex of aedeagus comprising a small horizontal lobe dorsally and a stout heavily-pigmented triangular lobe, denticulate along its upper margin, a short distance below it. Genital styles elongate, apical margin very oblique; two short stout spinose processes, one directed mesad, the other laterad, on dorsal margin at two-thirds from base.

Male: length, 8.7 mm; tegmen, 8.8 mm.

Holotype ♂, Viet-nam: Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.) in Inst. Zool. P.A.N.

This species does not agree with any of the alternatives presented in MELICHAR's key (1914: 114): the two middle anteapical cells are equally long, but the apex of the vertex has only one black spot, and the apical margin of the tegmina is dark. In *S. hopponis*, the aedeagal structure is appreciably different: the ventral lobe is not dilated apically, and the small aedeagal apex comprises two small spinose processes between which there is a deflexed elongate-triangular lobe.

Family ***Issidae*** SPINOLA

Genus ***Hemisphaerius*** SCHAUM

SCHAUM 1850: 71. Type species, *Issus coccinelloides* BURMEISTER 1834: 305.

Hemisphaerius signifer WALKER.

WALKER 1851: 380.

1 ♀, Viet-nam: Thanh-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.).

Hemisphaerius scymnoides WALKER.

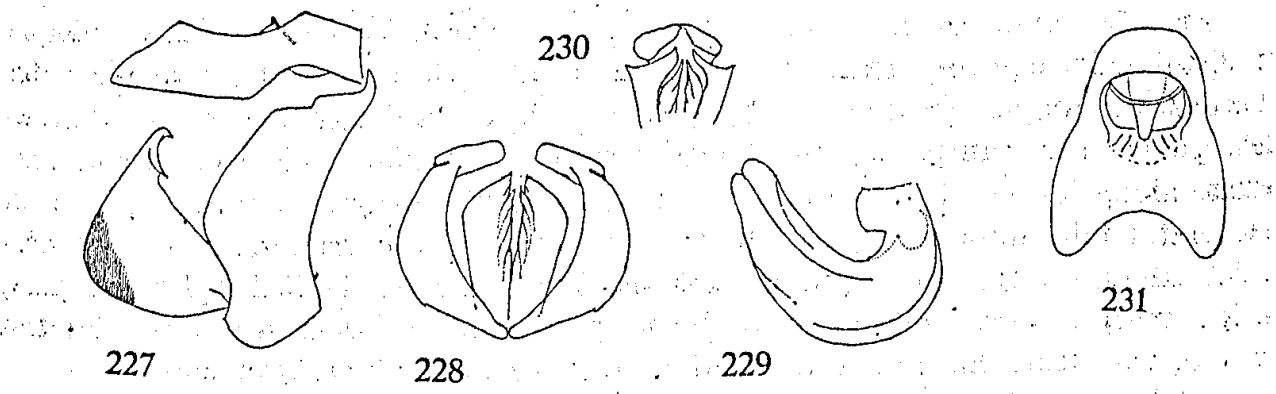
WALKER 1862: 309.

3 ♂, 2 ♀, Viet-nam: Than-ha province, Hoa Binh, 12, 13. VI. 1966 (R. B. & B. P.).

***Hemisphaerius palaemon* sp. n.** (Figs. 227–231).

Vertex wider between basal angles than long at sides (2.8 : 1), slightly declivous, lateral margins not elevated, anterior margin well-defined; frons finely rugulose-punctate, with a slight depression medially at base. Post-tibiae with two spines laterally, six apically, basal metatarsal segment with nine teeth. Wings about half as long as tegmen.

Reddish-brown; clypeus, pro- and mesotrochanters, postfemora except apically, and all tibiae distally, dark fuscous, post-tibiae and all tarsi, light yellowish brown. Tegmina uniformly brown (chocolate brown in male type, lighter brown in female paratypes).



Figs. 227–231. *Hemisphaerius palaemon* sp. n. 227 — male genitalia, right side; 228 — male genitalia, posterior view; 229 — aedeagus, right side; 230 — apex of aedeagus, posterior view; 231 — anal segment, dorsal view.

Anal segment of male as long as wide at apex, widening distad, apical angles produced, rounded. Pygofer with dorsolateral angles obtuse. Aedeagus tubular, upcurved distad and becoming strongly medially sulcate below, laterally expanding into a pair of rounded slightly hollowed horizontal lobes, each finely but strongly sclerotised along its outer rim. Genital styles in side view subtriangular; apical margin oblique, apical process relatively long, incurved, with a small rectangular lobe at its base.

Male: length (including tegmen), 4.7 mm.; tegmen, 4.5 mm. Female: length (including tegmen), 4.7 mm.; tegmen, 4.5 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 5. VI. 1966 (R. B. & B. P.) in Inst. Zool. P.A.N.

Paratypes, 2 ♀, Viet-nam: Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.).

This species runs to *lygaeus* MELICHAR in MELICHAR's key (1906: 68), but differs both from this and from *H. ruficeps* MELICHAR in the markings on the legs, and the absence of dark marking on the genae or the pronotum. Moreover, the size given by MELICHAR for both his species (4 mm.) is less than that of *palaemon*.

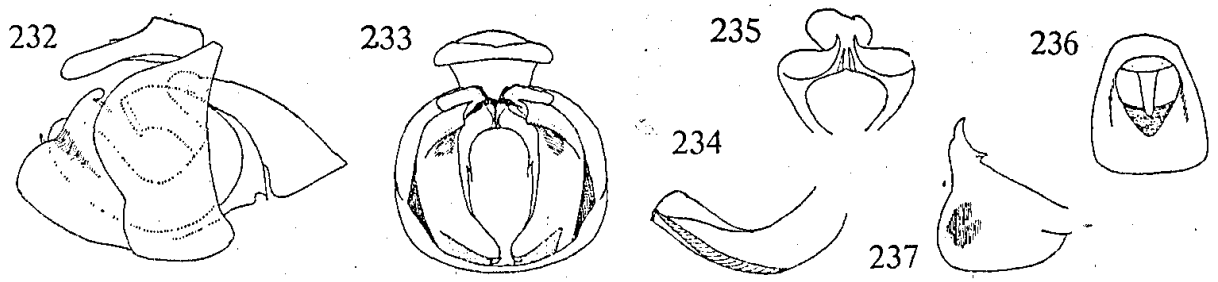
***Hemisphaerius lysanias* sp. n.** (Figs. 232–237).

Vertex wider at base than long in middle (4 : 1) and at sides (2.8 : 1), slightly declivous, lateral margins not elevated, anterior margin moderately

well defined; frons rather coarsely rugulose-punctate, without a median impression basally. Post-tibiae with two spines laterally, six apically, basal metatarsal segment with nine teeth. Wings about half as long as tegmen.

Green; clypeus dark fuscous except at base, legs light yellowish brown.

Anal segment of male about as long as broad, widest at apex; apical margin transverse, lateroapical angles not produced. Pygofer with dorsolateral angles broadly rounded, slightly produced. Aedeagus very broad, shallowly curved upward distad, with a pair of very broad lobes, each covering both ventral and lateral surfaces of aedeagus, and abruptly acuminate at apex; a narrow median lobe, terminating in a spine, extending between the broader lobes at apex. Genital styles deeply curved, apical process relatively large, shaped as figured.



Figs. 232–237. *Hemisphaerius lysanias* sp. n. 232 – male genitalia, right side; 233 – male genitalia, posterior view; 234 – aedeagus, right side; 235 – apex of aedeagus, posterior view; 236 – anal segment, dorsal view; 237 – genital style, lateral view.

Male: length (including tegmen), 4.5 mm.; tegmen, 3.7 mm.

Holotype ♂, Viet-nam: Nghe An district, Phu Quy, 16. VI. 1959 (B. P. & J. P.) in Inst. Zool. P.A.N.

In many, if not most, species of *Hemisphaerius*, the costal margin of the tegmen is distinctly produced cephalad in a broad lobe. In *H. palaemon*, this lobe is not quite so evident in lateral view as it is somewhat inflected. In *H. lysanias*, however, the lobe is virtually absent. This species does not run to any of the species in MELICHAR's key. It differs from *H. javanensis* MELICHAR in the absence of black marking on the lateral lobes of the pronotum, from *H. variegatus* STÅL in the absence of black markings on the legs, and from *H. ardus* MELICHAR in the more extensive infuscation of the clypeus.

Genus *Gergithus* STÅL

STÅL 1870: 756. Type species, *Hemisphaerius schaumi* STÅL 1855: 91.

Gergithus gravidus MELICHAR.

MELICHAR 1906: 61.

2 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.).

Gergithus iguchii MATSUMURA.

MATSUMURA 1916: 98.

1 ♂, Viet-nam: Cuo-phuong province, Binh Binh, 7. V. 1966 (R. B. & B. P.).

Genus *Macrodaruma*, novum

Head with eyes narrower than pronotum. Vertex narrow, only a little wider than an eye, longer than broad, strongly produced and tapering distad, disc hollowed; frons much longer than broad (more than 2 : 1), wider at apex than at base, median third of disc shallowly elevated; postclypeus tricarinate, abruptly angulate at apex in profile; rostrum attaining post-trochanters, apical segment subequal to subapical segment; ocelli small, non-functional, eyes rounded, with a sharp ridge behind; antennae short, second segment subglobose. Pronotum very short, lateral carinae almost meeting in middle line anteriorly, foliately elevated, a narrow groove medially, posterior margin foliately elevated; mesonotum about twice as broad as long, ecarinate, or with lateral carinae very weakly indicated; legs moderately long; profemora and mesofemora with lower anterior margin moderately foliately produced; post-tibiae with two spines laterally, six apically, basal metatarsal segment with two larger and eight or nine smaller teeth, second segment with two teeth and a small setose pad. Tegulae short. Tegmina very shallowly tectiform, longer than broad (about 1.8 : 1), costal margin convex, curving to meet sutural margin subacutely, claval suture absent; longitudinal veins prominent, with much supernumerary forking and numerous irregular transverse veinlets. Wings almost as long as tegmina, comprising a single lobe; longitudinal veins distinct in basal half, venation irregularly reticulate in distal half.

Type species, *Macrodaruma pertinax* sp. n.

This genus differs from *Darumara* METCALF, to which it is most nearly allied, in the frons not being tricarinate, and the pronotum lacking a median carina and having foliaceous lateral carinae.

Macrodaruma pertinax sp. n. (Figs. 238–245).

Vertex longer in middle than broad at level of base of middle line (nearly 2.4 : 1); frons longer than broad (2 5 : 1), wider at apex than at base (2.1 : 1) and widest at about seven-eights from base, in profile distinctly concave basally.

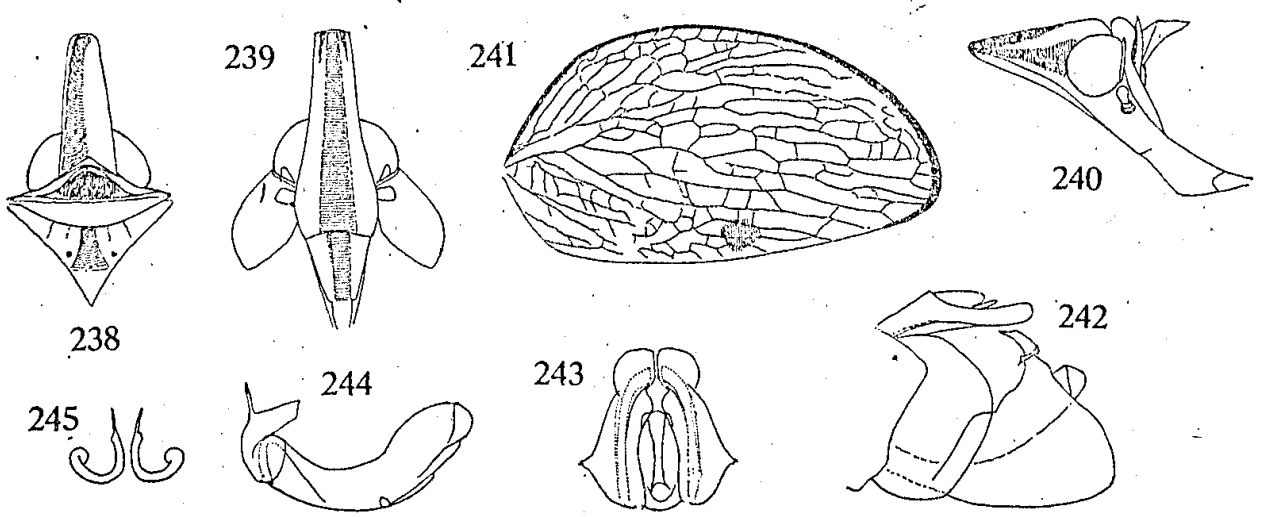
Ochraceous; sides of head before eyes, lateral margins and median area of frons at base, disc of vertex except for a sprinkling of ochraceous spots, lateral lobes of pronotum in outer half, tegulae, a suffusion overlying mesopleura, fore and middle legs, except for a sprinkling of ochraceous spots, dark fuscous; second antennal segment, green; median elevated area of frons and postclypeus, a narrow stripe on side of head before eye and a few small marks on anterior margin of mesonotum, orange red. Tegmina with veins ochraceous, cells yellowish brown, many of the more distal cells with an ochraceous spot in middle; inflected portion of costa basally, and apical margin of tegmen, piceous; a round spot at apex of clavus, fuscous. Wings fuscous.

Anal segment of male about twice as long as broad, ovate, anal foramen situated at middle. Pygofer with dorsolateral angles rounding, not produced. Aedeagus tubular, curved upward distad, a small inflected rounded lobe dor-

sally on each side at apex, a moderately long triangular lobe on each side ventrally near middle, slightly curving upward; suspensorium complex, with a pair of rounded lobes ventrally, each with outer margin thickened and extending basad into a moderately long stout spinose process. Genital styles subtriangular in side view; apical process with a small triangular lobe on its outer margin.

Male: length, 6.6 mm; tegmen, 6.0 mm.

Holotype ♂, Viet-nam: Tam Dao, 70 km N of Hanoi, 24–26. IV. 1962 (A. W.) in Inst. Zool. P.A.N.



Figs. 238–245. *Macrodaruma pertinax* gen. et sp. n. 238 — head and thorax, dorsal view; 239 — head and lateral lobes of pronotum, anterior view; 240 — head and thorax, left side; 241 — tegmen; 242 — male genitalia, left side; 243 — aedeagus, posterior view; 244 — aedeagus, left side; 245 — lower ends of suspensorium, ventral view.

Genus *Euxaldar*, novum

Vertex quadrate, broader than long (about 3 : 1), margins carinate, anterior margin transverse, not or scarcely surpassing eyes, disc scarcely depressed; frons longer than broad, basal margin transverse, lateral margins weakly diverging to below level of antennae, then incurved to frontoclypeal suture, which is transverse and only a little shorter than basal margin; disc of frons flat, ecarinate, finely granulate, with a row of submarginal pustules laterally; postclypeus with its basal two-fifths lying in same plane as frons, coarsely tricarinate, and its distal three-fifths strongly curving caudad, coarsely medially carinate; rostrum attaining post-trochanters; ocelli absent, or if present, non-functional. Pronotum with anterior margin convex, posterior margin transverse, margins finely carinate, a pair of impressions close together medially near posterior margin; mesonotum twice as broad as long, weakly but finely medially carinate, a slight eminence occupying position of each lateral carina; post-tibiae with two spines laterally, about seven apically. Tegmina coriaceous, broad, covering abdomen; claval suture distinct; costal vein distinctly submarginal basally, $Sc+R$ and M each forking near base of tegmen, Cu_1 appa-

rently simple, claval veins uniting distad of middle of clavus; a dense reticulum of veinlets covering all intervenal areas. Wing more than half as long as tegmina, with veins forming a lax reticulum.

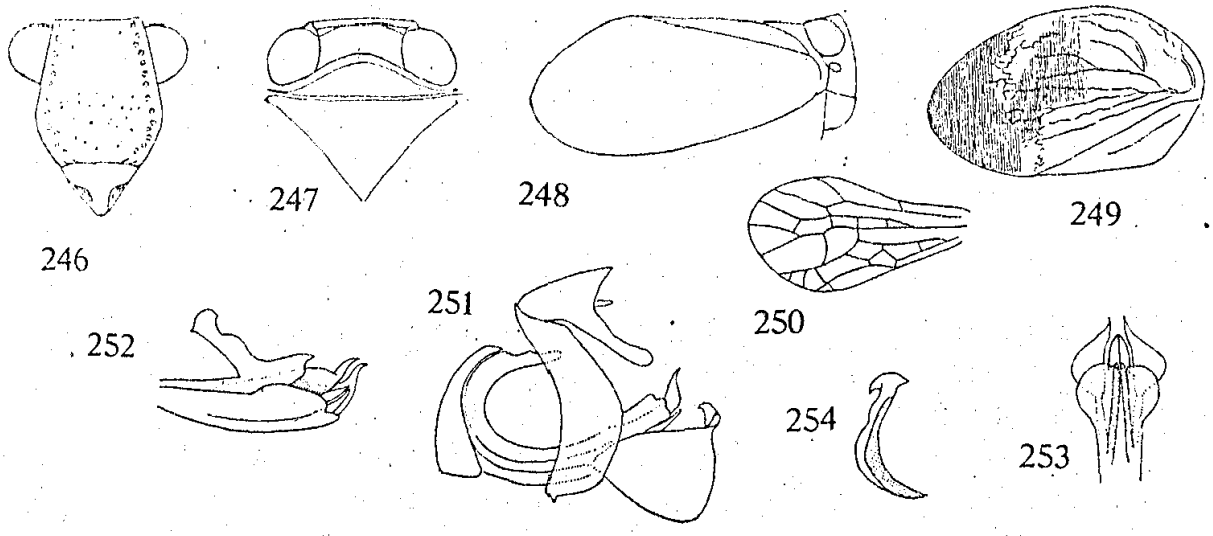
Type species, *Euxaldar jehucal* sp. n.

In MELICHAR's key (1906: 100) the type species runs to *Falcidius* but differs substantially in the form of the postclypeus and in the presence of wings.

The generic name is an arbitrary combination of letters, and is regarded as masculine.

***Euxaldar jehucal* sp. n.** (Figs. 246–254).

Vertex wider at base than long in middle (3 : 1) and than at sides (2.3 : 1), slightly wider at apex than at base, lateral margins not or scarcely elevated; frons with a row of 11–12 pustules bordering each lateral margin. Vertex and pronotum with disc depressed; mesonotum with median carina distinct, lateral carinae represented by broad elevations. Ocelli absent; postclypeus broader than long, in same plane as frons, anteclypeus strongly convex in profile, coarsely carinate medially. Post-coxal process short, distinct; post-tibiae with two spines laterally, seven apically, basal metatarsal segment with seven teeth. Tegmina with costa distinctly produced cephalad at base. Wings reaching to apex of abdomen.



Figs. 246–254. *Euxaldar jehucal* gen. et sp. n. 246 – frons and basal part of clypeus, anterior view; 247 – head and thorax, dorsal view; 248 – head, thorax and tegmen, right side; 249 – tegmen; 250 – wing; 251 – male genitalia, left side; 252 – apical half of aedeagus, posteroventral view from left; 253 – apex of aedeagus, ventral view; 254 – left genital style, posterior view.

Light yellowish brown, with all margins and pustules ochraceous. Tegmina light yellowish brown; an oblique suffusion from costa at one-third from base to anal angle and a small suffusion at middle of claval suture, darker yellowish brown; veins concolorous, but ochraceous near base of corium and in a sigmoid band across tegmen at about two-thirds from base.

Anal segment of male moderately long, dorsally produced caudad above anal style in an angulate lobe; apical angles narrowly and strongly produced caudad, each deeply rounded apically. Pygofer with dorsolateral angles not produced, lateral margins shallowly convex in upper half. Aedeagus relatively very long, deeply curved ventrad and caudad in basal half, almost straight in distal half, narrowly tubular, slighty dilated laterad apically, with ventrolateral margins each terminating in a short spine; dorsolateral margins apically rounded. Genital styles about as deep dorsoventrally as long, apical process vertical, moderately long, abruptly bent cephalad at apex and terminating in a short spine; outer margin of process near base produced laterad in a small acuminate lobe.

Male: length, 3.0 mm.; tegmen, 3.6 mm. Female: length, 3.4 mm.; tegmen, 4.2 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.), in Inst. Zool. P.A.N.

Paratypes, 3 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.).

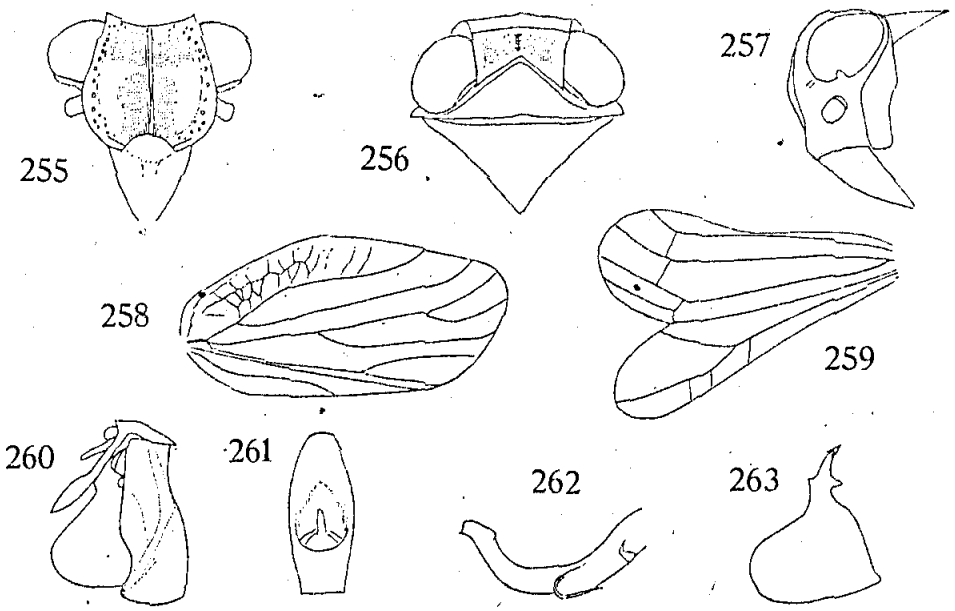
Genus *Tetrica* Stål

Stål 1866: 208. Type species, *Tetrica fusca* Stål 1870: 757.

***Tetrica philo* sp. n.** (Figs. 255–263).

Vertex wider at anterior margin than long in middle (about 3 : 1), lateral margins slightly diverging distad, anterior margin weakly obtusely angulate, posterior margin rectangulately excavate, disc markedly depressed medially; frons as broad as long from basal lateral angle to apical lateral angle, broader than long in middle (about 1.3 : 1), basal margin shallowly concave, lateral margins sinuate, widest a part at level of antennae, disc slightly convex transversely and longitudinally, median carina prominent, lateral carinae absent, their position indicated by a row of submarginal pustules; frontoclypeal suture concave; postclypeus ecarinate; rostrum with apical segment in profile very obliquely truncate distally, in anterior view slightly widening distally; eyes broadly ovate, ocelli present, non-functional, antennae with second segment subglobose. Pronotum with anterior margin almost rectangulate at middle, shallowly depressed medially; mesonotum broader than long (about 2 : 1), ecarinate, disc shallowly depressed on each side of middle; mesopleura with a slight projection above base of mesocoxa; post-tibiae with two spines laterally, nine apically, basal metatarsal segment with two spines and a row of seven teeth between them. Tegmina with costal margin inflected in basal two fifths, apical margin oblique, *Sc*+*R* forking at about one sixth from base, a transverse veinlet overlying humeral eminence, *Sc* simple, though with indications of five veinlets to costal margin in distal half, *R* simple or shortly forked near apex, *M* forking near middle of tegmen, anterior branch (M_{1+2}) forked distally,

posterior branch simple, Cu_1 forked distad of union of claval veins. Wings with a single excavation in margin, venation regular, *Sc* and *M* simple, Cu_1 forked at a quarter from apex, postcubital vein distinct.



Figs. 255–263. *Tetrica philo* sp. n. 255 – head, anterior view; 256 – head and thorax, dorsal view; 257 – head and thorax, left side; 258 – tegmen; 259 – wing; 260 – male genitalia, right side; 261 – anal segment of male, dorsal view; 262 – aedeagus, right side; 263 – genital style, right side.

Light yellowish brown; vertex anteriorly, frons except for an M-shaped mark on disc and pustules laterally, about eight oblique bands on each side of middle of postclypeus, rostrum, legs, pronotum apicomedially and four diffuse areas on mesonotum, dark yellowish brown. Tegmina translucent, yellowish brown; longitudinal veins darker reddish brown, a reticulum of veinlets in basal half of costal cell, and transverse immersed veinlets in distal half of corium and in clavus, pale yellowish brown. Wings uniformly fuscous.

Anal segment of male longer than broad (nearly 2.5 : 1), strongly decurved near base, lateral margins weakly convex, a faint median ridge dorsally in distal third, anal foramen at about one third from base. Pygofer with lateral margins vertical, almost straight in upper half and shallowly sinuate in lower half. Aedeagus tubular, descending ventrocaudad from base, then curving caudad and slightly tapering, a pair of stout, moderately long spinose processes arising ventrolaterally at middle, directed cephalad; suspensorium very short. Genital styles about as long as deep, with ventral margin in side view deeply rounding into apical margin, apical process relatively large, triangular, twisted axially through 45°, with outer margin a little produced laterad and apex acute.

Male: length, 5.5 mm.; tegmen, 6.2 mm. Female: length, 7. 5 mm.; tegmen, 6.8 mm.

Holotype ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966 (R. B. & B. P.), in Inst. Zool P.A.N.

Paratype ♀, Viet-nam: with same data as holotype.

The venation of the tegmina and wings and the structure of the apical segment of the rostrum suggest that this species is allied to *T. zephyrus* FENNAH. The two differ markedly in the form and ornamentation of the frons and in the proportions of the vertex, as well as in the shape of the tegmina and in coloration. From the Burmese *T. fusca* STÅL, it differs in the lateral margins of the frons being curved, not angulate, and in the posterior lobe of the wing being smaller than the anterior. From *T. viridimixta* DISTANT, it differs in the proportions of the vertex and frons and the much greater length of inflected margin at the base of the costa.

Tetrica sp.

Vertex wider at anterior margin than long in middle (3.0 : 1) and at lateral margin (2.0 : 1); frons wider than long in middle (2 : 1) and than at lateral margin (nearly 1.7 : 1). Pregenital sternite produced caudad in a broad lobe, with its margin slightly excavate medially.

1 ♀, Viet-nam: Nghe An district, Phu Quy, 16. VI. 1959 (B. P. & J. P.).

The generic affinity of this species is not clear, and its present assignment is provisional.

Genus ***Tonga*** KIRKALDY

KIRKALDY 1900: 242. Type species, *Cyrene guttulata* WESTWOOD 1845: 35.

Tonga westwoodi (SIGNORET).

Cyrene westwoodi SIGNORET 1862: 124.

1 ♀, Viet-nam: Chiné near Hanoi, 24. VI. 1959 (B. P. & J. P.).

Genus ***Fortunia*** DISTANT

DISTANT 1909: 83. Type species, *Issus byrrhoides* WALKER.

Fortunia byrrhoides (WALKER).

Issus byrrhoides WALKER 1858: 89.

1 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 7. VI. 1966. (R. B. & B. P.).

Family ***Flatidae*** SPINOLA

Genus ***Lawana*** DISTANT

DISTANT 1906: 420. Type species, *Flata candida* FABRICIUS 1796: 517.

Lawana imitata (MELICHAR).

Phyma imitata MELICHAR 1902: 45.

5 ♂, 10 ♀, Viet-nam: Hanoi, 16. V. 1966 (R. B. & B. P.); Yen-so, 10 km S of Hanoi, 18. V. 1966 (R. B. & B. P.).

Genus ***Neosalurnis*** DISTANT

DISTANT 1910: 31. Type species, *Neosalurnis reticulatus* DISTANT.

Neosalurnis reticulatus DISTANT

DISTANT 1910: 311.

2 ♂, Viet-nam: Bao Ha, S Fan-si-Pan, 4–11. IV. 1962 (A. W.).

Genus ***Geisha*** KIRKALDY

KIRKALDY 1900: 296. Type species, *Poeciloptera distinctissima* WALKER.

Geisha distinctissima (WALKER).

Poeciloptera distinctissima WALKER 1858: 114.

1 ♂, Viet-nam: Cuo-phuong province, Ninh Binh, 6. VI. 1966 (R. B. & B. P.).

Genus ***Salurnis*** STÅL

STÅL 1870: 773. Type species, *Salurnis granulosa* STÅL 1870: 774.

Salurnis marginella (GUÉRIN-MÉNEVILLE).

Ricania marginella GUÉRIN-MÉNEVILLE 1834: 467.

3 ♂, 8 ♀, Viet-nam: Co-loa, 20 km. NE of Hánoi, 7–9. V. 1966: Than-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.).

Family ***Ricaniidae*** STÅL

Genus ***Euricania*** MELICHAR

MELICHAR 1898: 393. Type species, *Pochazia ocellus* WALKER.

Euricania ocellus (WALKER).

Pochazia ocellus WALKER 1851: 429.

13 ♂, 11 ♀ and one mutilated specimen, Viet-nam: Cuo-phuong province, Ninh Binh, 5–7, 11. VI. 1966 (R. B. & B. P.): Chiné near Hanoi, 25. VI. 1959 (B. P. & J. P.).

Genus ***Ricanoides*** ZIA

ZIA 1935: 538. Type species, *Ricania flabellum* NOUALHIER.

Ricanoides flabellum (NOUALHIER).

Ricania flabellum NOUALHIER 1896: 256.

3 ♂, 3 ♀, Viet-nam: Cuo-phuong province, Ninh Binh (R. B. & B. P.).

Genus ***Ricania*** GERMAR

GERMAR 1818: 221. Type species, *Cercopis fenestrata* FABRICIUS 1775: 688.

Ricania fumosa (WALKER).

Flatoides fumosus WALKER 1851: 414.

1 ♂, Viet-nam: Tam Dao, 70 km N of Hanoi, 24–26. IV. 1962. (A. W.).

Ricania plebeja STÅL.

STÅL 1865: 162.

2 ♂, 1 ♀, Viet-nam: Chiné near Hanoi, 24, 25. VI. 1959 (B. P. & J. P.); Cuo-phuong province, Ninh Binh, 5. VI. 1966 (R. B. & B. P.).

Ricania speculum (WALKER).

Flatoides speculum WALKER 1851: 406.

3 ♂, 1 ♀, Viet-nam: Chiné near Hanoi, 24. VI. 1959 (B. P. & J. P.).

Genus ***Ricanula*** MELICHAR

MELICHAR 1898: 218. Type species, *Ricania noualhieri* MELICHAR 1898: 388.

Ricanula nivisignata (WALKER).

Flatoides nivisignata WALKER 1862: 310.

4 ♀, Viet-nam: Chiné near Hanoi, 24, 25. VI. 1959 (B. P. & J. P.); Cuo-phuong province, Ninh Binh, 6. VI. 1966 (R. B. & B. P.).

Genus ***Pochazia*** AMYOT & SERVILLE

AMYOT & SERVILLE 1843: 528. Type species, *Flata fasciata* FABRICIUS 1803: 47.

Pochazia interrupta WALKER.

WALKER 1851: 428.

3 ♂, 1 ♀, Viet-nam: Cuo-phuong province: Ninh Binh, 5, 6. VI. 1966 (R. B. & B. P.); Than-ha province, Hoa Binh, 12. VI. 1966 (R. B. & B. P.).

Family *Lophopidae* STÅL

Genus *Jivatma* DISTANT

DISTANT 1906: 328. Type species, *Jivatma metallica* DISTANT.

Jivatma metallica DISTANT.

DISTANT 1906: 329.

1 ♂, 1 ♀, Viet-nam: Cuo-phuong province, Ninh Binh, 5. VI. 1966 (R. B. & B. P.); Lao Kay, 12. II. 1961 (K. G.).

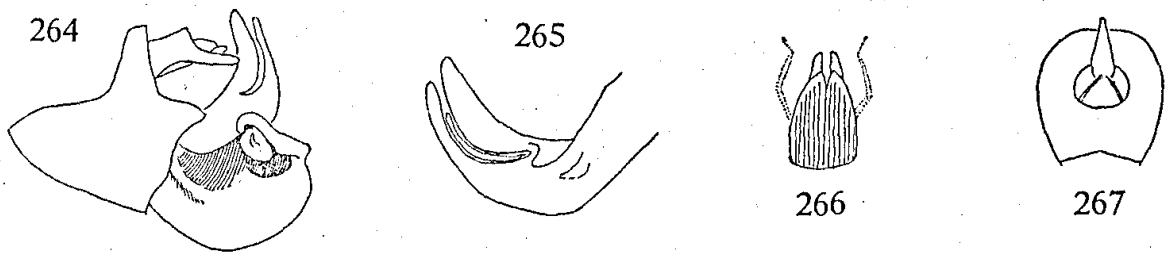
Genus *Serida* WALKER

WALKER 1857: 158. Type species, *Serida latens* WALKER 1857: 158.

Serida gorgopis sp. n. (Figs. 264–267).

Vertex longer in middle line than wide at base (nearly 1.2 : 1), and longer than base of frons visible above (1.7 : 1); frons longer than broad (nearly 2.1 : 1).

Dark fuscous; lateral fields of pronotum except for nine oblique stripes, genae and antennae, carinae of vertex, pronotum and mesonotum, anterior half of pronotum immediately behind eye and four pustules nearer posterior margin, and tegulae, ochraceous or pale yellowish brown; femora apically, pro- and mesotibiae except for three transverse stripes, and post-tibiae, darker yellowish brown. Tegmina with corium dark reddish brown posterior to *M*, darkening almost to black elsewhere; a spot between *R* and M_{3+4} slightly distad of middle, a slightly larger spot on anterior margin in stigmal area, and four or five spots, two of them elongate, on apical margin, hyaline or translucent pale yellowish brown; veins concolorous, sparsely overlain with fuscous spots in corium. Wings fuscous, sordid white between *Sc*+*R* and *M* at middle, veins fuscous, *Sc*+*R* pale yellowish brown in pale area.



Figs. 264–267. *Serida gorgopis* sp. n. 264 — male genitalia, left side; 265 — aedeagus, right side; 266 — aedeagus, posterior view; 267 — anal segment of male, dorsal view.

Anal segment of male slightly longer than broad, apical angles broadly rounded, not produced, apical margin slightly excavate medially. Pygofer with dorsolateral angles acutely produced. Aedeagus moderately long, curving

upward distad, tubular; a pair of membranous, longitudinally-striate lobes ventrally, each deeply rounded distally; a pair of slightly narrower and longer lobes overlying the preceding, each pigmented in its distal portion and deeply rounded apically; phallobase heavily sclerotised in basal half of aedeagus, and dilated laterally at base in a pair of broadly rounded horizontal lobes. Genital styles broad, ventral margin convex in side view, dorsal margin produced dorsad in a thick broad lobe that is folded laterad and ventrad and bears a short spinose process apically.

Male: length, 8.0 mm.; tegmen, 8.8 mm.

Holotype ♂, Vietnam: Cuo-phuong province, Ninh Binh, 6. VI. 1966 (R. B. & B. P.), in Inst. Zool. P.A.N.

Paratype ♀, Viet-nam: Tam Dao, 70 km N of Hanoi, 24–26. IV. 1962 (A. W.).

This species differs from *S. latens*, *S. balteata* DISTANT and *S. sherwilli* DISTANT in the relative length of the vertex in relation to its basal width and to the length of the projecting part of the base of the frons, the corresponding ratios in the type specimens being as follows: *S. latens*, 1.3 : 1 and 2.1 : 1; *S. balteata*, nearly 1.2 : 1 and 4.3 : 1; and *S. sherwilli*, 1 : 1 and nearly 1.5 : 1. From *S. excisa* MELICHAR, it differs in the presence of a hyaline spot in the middle of the corium.

Family ***Eurybrachyidae*** STÅL

Genus ***Loxocephala*** SCHAUM

SCHAUM 1850: 71. Type species, *Lystra aeruginosa* HOPE.

Loxocephala aeruginosa (HOPE).

Lystra aeruginosa HOPE 1840: 443.

1 ♀, Viet-nam: Tam Dao, 70 km. N of Hanoi, 24–26. IV. 1962 (A. W.).

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STRESZCZENIE

[Tytuł: *Fulgoroidea* (*Homoptera*) z Wietnamu]

Praca jest oparta prawie wyłącznie na materiałach zebranych w północnej części Wietnamu w latach 1959—1966 przez pracowników i współpracowników Instytutu Zoologii Polskiej Akademii Nauk. Ogółem omówiono 106 gatunków należących do 78 rodzajów z 15 rodzin. Dziesięć rodzajów, 29 gatunków i 7 podgatunków opisano jako nowe.

РЕЗЮМЕ

[Заглавие: *Fulgoroidea* (*Homoptera*) из Вьетнама]

Работа почти полностью основана на материалах, собранных в северной части Вьетнама сотрудниками Зоологического института Польской Академии наук и сотрудничающими с институтом лицами в 1959–1966 гг. Всего рассмотрено 106 видов принадлежащих к 78 родам и 15 семействам. Десять родов, 29 видов и 7 подвидов описаны впервые.